

## DEPARTMENT OF TAMIL(AIDED)

### B.A TAMIL - AUTA

PO NO	Programme Outcomes
PO – 1	தமிழைப் பிழையின்றி பேசுதல், எழுதுதல்.
PO – 2	தமிழ் இலக்கணத்தை அறிந்து கொள்ளுதல்.
PO – 3	சங்ககால மக்களின் வாழ்வைக் கற்றுக் கொள்ளுதல்.
PO – 4	தமிழர் பண்பாட்டை அறியச் செய்தல்.
PO – 5	போட்டித்தேர்வில் வெற்றிபெறுவதற்கு வாய்ப்பை ஏற்படுத்திக் கொடுத்தல்.

PSO NO	Programme Specific Outcomes
PSO – 1	தமிழ்நாடு அரசுப் பணித்தேர்வுக்கு எளிமையாகச் செல்லுதல்.
PSO – 2	வேலைவாய்ப்பில் முதலிடம் பெறுதல்.
PSO – 3	பேச்சாளராக உருவெடுத்தல்.
PSO – 4	பத்திரிகை நிருபராக மாறும் தகுதியைப் பெறுதல்.
PSO – 5	பத்திரிகை அலுவலக நிருவாக அமைப்பினைத் தெரிந்து கொள்ளல்.

CO NO	Course Outcomes PART 1 TAMILதற்கால இலக்கியம் – P1TA2
CO – 1	மரபுக் கவிதையின் தன்மைகளை அறிதல்.
CO – 2	புதுக்கவிதைகளின் வரலாற்றை அறிய இயலும்.
CO – 3	சிறுகதை இலக்கியத்தை அறிதல்.

CO – 4	எழுத்திலக்கண வகைகளை அறிந்துகொள்ள முடியும்.
CO – 5	புதுக்கவிதையின் படிநிலைகளை அறிய இயலும்.

CO NO	Course Outcomes இக்கால இலக்கியம் – P3CTA6
CO – 1	மரபுக் கவிதையின் வடிவங்களை அறிந்துகொள்ள முடியும்.
CO – 2	உரைநடையின் சிறப்புத் தன்மைகளை உணர்ந்து கொள்ளல்.
CO – 3	சிறுகதையின் இயல்புகளை அறிய இயலும்.
CO – 4	நாடக இலக்கியத்தைக் கற்றல்.
CO – 5	புதினம் வழியாக சமுதாயச் சிந்தனைகளை அறிந்து கொள்ளல்.

CO NO	Course Outcomes சமய இலக்கியம் – P3CTA5
CO – 1	தமிழரின் பக்திநெறியை அறிந்து கொள்ளுதல்.
CO – 2	சமயங்களின் வாயிலாக மனிதனின் வளர்ச்சியை உணர்தல்.
CO – 3	காலந்தோறும் சமய வளர்ச்சியை அறிதல்.
CO – 4	சமயப்பொது நோக்கினை அறிய இயலும்.
CO – 5	சித்தர்களின் செயல்பாடுகளை உணர்தல்.

CO NO	Course Outcomes இதழியல் அறிமுகம் - 1 – P3ATA3
CO – 1	இதழியல் தொடர்பான செய்திகளை தெரிந்து கொள்ளல்.
CO – 2	பழங்கால இதழ்களின் நோக்கங்களை அறிதல்.
CO – 3	பத்திரிகை சுதந்திரத்தின் தன்மையைக் கற்றல்.
CO – 4	செய்தியின் வாயில்களை அறிய இயலும்.

**CO – 5** செய்திகளைச் செப்பனிடுதல் பற்றிக் கற்க முடியும்.

<b>CO NO</b>	<b>Course Outcomes</b> <b>PART 1 TAMILபக்தி இலக்கியமும் சிற்றிலக்கியமும்- Q1TA4</b>
<b>CO – 1</b>	பக்தி இலக்கிய வரலாற்றை அறிதல்.
<b>CO – 2</b>	சைவ, வைணவ பெரியோர்களின் வரலாற்றை அறிய இயலும்.
<b>CO – 3</b>	சிற்றிலக்கியக் கூறுகளை அறிந்து கொள்ளல்.
<b>CO – 4</b>	புதினத்தின் தோற்றத்தைக் கற்றல்.
<b>CO – 5</b>	தமிழ் செம்மொழி நூல்களை அறிந்து கொள்ளல்.

<b>CO NO</b>	<b>Course Outcomes</b> <b>காப்பிய இலக்கியம் – Q3CTA7</b>
<b>CO – 1</b>	காப்பிய வளத்தினை அறிந்து கொள்ளல்.
<b>CO – 2</b>	காப்பியக் கதைகளின் வாயிலாக அக்காலச் சமூக நிலையை அறிந்துகொள்ள முடியும்.
<b>CO – 3</b>	காப்பியம் தோன்றியதற்கான காலப் பின்னணியை அறிய இயலும்.
<b>CO – 4</b>	காப்பியங்களின் வழி புராணக் கதைகளை அறிய முடியும்.
<b>CO – 5</b>	இக்காலக் காப்பியங்களை அறிய இயலும்.

<b>CO NO</b>	<b>Course Outcomes</b> <b>கோயிற்கலைகள் – Q3CTA8</b>
<b>CO – 1</b>	கோயிற்கலைகளின் மூலம் தமிழர் பண்பாட்டை உணர்ந்து கொள்ளல்.
<b>CO – 2</b>	சமயம் சார்ந்த வரலாற்றுப் பதிவினை அறிய இயலும்.
<b>CO – 3</b>	அக்கால வழிபாட்டு முறையை தெரிந்து கொள்ளுதல்.
<b>CO – 4</b>	பல்லவர் காலக் கட்டடக் கலையை அறிய இயலும்.

CO – 5 சிற்பங்களின் தனித்துவத்தை உணர முடியும்.

CO NO	Course Outcomes இதழ்கள் நோக்கும் போக்கும் – Q3ATA4
CO – 1	இதழ்களின் வளர்ச்சியினை அறிய இயலும்.
CO – 2	இதழியலாளர்களின் வரலாற்றை அறிதல்.
CO – 3	இதழ்களின் அமைப்பு முறையை தெரிந்து கொள்ளல்.
CO – 4	சிறுவர் இதழ்களின் தோற்றத்தை அறிதல்.
CO – 5	புலனாய்வு இதழ்களின் நோக்கத்தை அறிய இயலும்.

CO NO	Course Outcomes PART 1 TAMILகாப்பிய இலக்கியம் – R1TA5
CO – 1	தமிழின் காப்பிய வகைகளை அறிய இயலும்.
CO – 2	காப்பிய வளர்ச்சியை தெரிந்து கொள்ளல்.
CO – 3	காப்பியங்கள் உணர்த்தும் உண்மைப் பொருளை அறிய முடியும்.
CO – 4	பா வகைகளை தெரிந்து கொள்ள முடியும்.
CO – 5	நாடக இலக்கியத்தைக் கற்றல்.

CO NO	Course Outcomes நன்னூல் (எழுத்து) – R3CTA5
CO – 1	எழுத்திலக்கணத்தை அறிந்து கொள்ள இயலும்.
CO – 2	எழுத்துக்கள் பிறக்கும் முறையை பயிற்சியின் மூலம் தெரிந்து கொள்ளல்.
CO – 3	புணர்ச்சி இலக்கணத்தின் அவசியத்தை உணர்ந்து கொள்ள முடியும்.
CO – 4	வேற்றுமை உருபுகள் புணரும் முறையினைக் கற்றல்.
CO – 5	சொற்களின் பொருளை அறிதல்.

CO NO	Course Outcomes இதழியல் அறிமுகம் - 2 – R3ATA4
CO – 1	இதழியல் பணிகள் பற்றி அறிதல்.
CO – 2	இதழ்களில் ஏற்படும் பிழைகளைத் திருத்துவதற்கு கற்றுக்கொள்ளுதல்.
CO – 3	பத்திரிகை நிருபராக மாற வாய்ப்புண்டு.
CO – 4	அச்சுக் கலையின் வளர்ச்சியைக் கற்றல்.
CO – 5	இதழ்களில் கருத்துப்படங்கள் பெறுமிடத்தை உணர்தல்.

CO NO	Course Outcomes தமிழக வரலாறும் பண்பாடும் – R3ETA3
CO – 1	தமிழர்களின் பழங்கால வாழ்க்கை முறையை அறிந்து கொள்ளல்.
CO – 2	பல்வேறு அரசர்களின் ஆட்சித் திறத்தைக் கற்றல்.
CO – 3	விடுதலைக்குப் பின் தமிழகம் பெற்றுள்ள வளர்ச்சி நிலையை அறிய முடியும்.
CO – 4	சங்ககால அரசர்களின் பழக்கவழக்கத்தை அறிதல்.
CO – 5	பல்லவர்களின் கலைத்தொண்டினை உணர்தல்.

CO NO	Course Outcomes அடிப்படைத் தமிழ் - 1 - R4NFTA2 (NME)
CO – 1	தமிழ் எழுத்துக்களை அறிந்துகொள்ள முடியும்.
CO – 2	சொல்லின் வகைகளை அறிதல்.
CO – 3	எழுத்துக்களை அகர வரிசையில் அமைக்கக் கற்றுக் கொள்ளுதல்.
CO – 4	தமிழின் சில சொற்களை அறிந்து கொள்ளுதல்.
CO – 5	தமிழ் மொழியை எழுதப் படிக்கக் கற்றுக் கொள்ளல்.

CO NO	Course Outcomes சிறப்புத்தமிழ் - 1 –R4NATA2 (NME)
CO – 1	நல்ல தமிழில் எழுதக் கற்றுக் கொள்ளுதல்.
CO – 2	தமிழைப் பிழையற எழுத அறிய இயலும்.
CO – 3	சிறுகதையின் வளர்ச்சி நிலையை அறிதல்.
CO – 4	கடிதம் எழுதக் கற்றுக்கொள்ள இயலும்.
CO – 5	கட்டுரை எழுத அறிந்து கொள்ளல்.

CO NO	Course Outcomes கால மேலாண்மை– R3STA2 (SSP)
CO – 1	காலத்தை சரியாகப் புரிந்து கொள்ளல்.
CO – 2	நேரத்தின் தேவையை உணர்தல்.
CO – 3	தொலைபேசியின் நன்மை தீமைகளைத் தெரிந்து கொள்ளல்.
CO – 4	வாழவேண்டிய முறைகளை அறிதல்.
CO – 5	பணியிட நேர மேலாண்மையைத் தெரிந்து கொள்ளல்.

CO NO	Course Outcomes PART 1 TAMILசங்க இலக்கியம்– S1TA6
CO – 1	சங்ககால மக்களின் பழக்கவழக்கம் மற்றும் வாழ்க்கைமுறையை அறிந்து கொள்ளல்.
CO – 2	அக்கால சமூக நீதிகளையும் அற உணர்வுகளையும் உணர்ந்து கொள்ள இயலும்.
CO – 3	சங்ககால காதல் மற்றும் போர் நிகழ்வுகளை உணர்தல்.
CO – 4	ஐவகை நில வகைப்பாடுகளை அறிதல்.
CO – 5	உரைநடையின் தோற்றப் பின்னணியை அறிதல்.

CO NO	Course Outcomes நன்னூல் (சொல்)– S3CTA6
CO – 1	சொல்லின் இலக்கணம் மற்றும் வகைகளை அறிந்து கொள்ளல்.
CO – 2	சொற்கள் புணரும் முறைகளை அறிந்து கொள்ளல்.
CO – 3	பெயர்ச்சொல்லிற்கும் வினைச்சொல்லிற்கும் பொதுவான நிலையை அறிதல்.
CO – 4	பொருள்கோளின் பெயரும் தொகையும் அறிதல்.
CO – 5	இடைச்சொல்லின் இலக்கணத்தைக் கற்றல்.

CO NO	Course Outcomes மக்கள் ஊடகத் தொடர்பியல். – S3ATA5
CO – 1	தமிழக இந்திய இதழியல் முன்னோடிகளைத் தெரிய இயலும்.
CO – 2	இந்திய இதழ்களை அறிந்து கொள்ளல்.
CO – 3	இதழியல் கோட்பாடுகளையும் மேலாண்மையையும் உணர்தல்.
CO – 4	ஊடகங்களின் வளர்ச்சியை அறிய இயலும்.
CO – 5	இதழியல் மேலாண்மையை உணர்தல்.

CO NO	Course Outcomes அற இலக்கியம் – S3CTA8
CO – 1	மனித வாழ்வின் அற உணர்வுகளை அறிந்து கொள்ளல்.
CO – 2	அற இலக்கியம் தோன்றியதற்கான காலப் பின்னணியை அறிதல்.
CO – 3	அறங்கள் உணர்த்தும் தன்மையினைக் கற்றல்.
CO – 4	பழமொழிகளை அறிய இயலும்.
CO – 5	நன்னெறிக் கதைகளைத் தெரிந்து கொள்ளல்.

CO NO	Course Outcomes அடிப்படைத்தமிழ் - 2 – S4NFTA3 (NME)
CO – 1	தமிழில் சொற்பொருளை அறிதல்.
CO – 2	பொருள் வேறுபாடுகளை அறிந்துகொள்ளல்.
CO – 3	அறநெறிகளைப் பின்பற்ற கற்றுக் கொள்ளல்.
CO – 4	தமிழைப் பிழையின்றி எழுதவும் படிக்கவும் அறிதல்.
CO – 5	மொழிபெயர்க்கத் தெரிந்து கொள்ளல்.

CO NO	Course Outcomes சிறப்புத்தமிழ் - 2 – S4NATA3 (NME)
CO – 1	தமிழ்மொழியைப் பிழையின்றி பேசவும் எழுதவும் கற்றுக் கொள்ளல்.
CO – 2	வாக்கியத்தைப் பிழையின்றிக் கற்றுக் கொள்ளல்.
CO – 3	பொதுக் கட்டுரைகளை எழுத அறிதல்.
CO – 4	உரைநடையை வாசிக்கத் தெரிந்து கொள்ளல்.
CO – 5	நிறுத்தற்குறிகளை அறியச் செய்தல்.

CO NO	Course Outcomes விளம்பரக்கலை– S3STA2 (SSP)
CO – 1	இந்திய விளம்பர வரலாற்றை தெரிந்து கொள்ளுதல்.
CO – 2	விளம்பரத்தின் இயல்புகளையும், நோக்கங்களையும் கற்றுக் கொள்ள முடியும்.
CO – 3	விளம்பரத்தின் வகைகளை அறிந்துகொள்ள முடியும்.
CO – 4	விளம்பரத்துறையில் வேலைவாய்ப்பைப் பெற முடியும்.
CO – 5	விளம்பரங்களின் மொழிநடையினைத் தெரிந்துகொள்ள முடியும்.



CO NO	Course Outcomes யாப்பு அணி – T3CTA11
CO – 1	செய்யுள் உறுப்புகளை அறிந்து கொள்ளல்.
CO – 2	பாவின் அமைப்பும் சிறப்பும் பற்றி அறிதல்.
CO – 3	பாக்களுக்குரிய ஓசைகளைக் கற்றல்.
CO – 4	அணி இலக்கணத் தோற்றத்தை அறிதல்.
CO – 5	அணிகளின் வகைகளை தெரிதல்.

CO NO	Course Outcomes மொழியியலும் மொழிபெயர்ப்பியலும்– T3CTA13
CO – 1	தமிழ் மொழியின் மேன்மையை அறிய இயலும்.
CO – 2	மொழியியலின் வரலாற்றை அறிந்துகொள்ள முடியும்.
CO – 3	ஒலியன், உருபங்களின் வேற்றுமையை ஒப்பிட்டு அறிய வாய்ப்பு உண்டு.
CO – 4	ஒலியுறுப்புகளின் தொழிலை அறிந்து கொள்ள முடியும்.
CO – 5	மொழிபெயர்ப்பின் இன்றியமையாமையை தெரிந்து கொள்ள முடியும்.

CO NO	Course Outcomes தமிழ் இலக்கிய வரலாறு – T3ETA2
CO – 1	சங்கம் இருந்தமைக்கான சான்றுகளை அறிதல்.
CO – 2	காப்பிய, அற இலக்கியங்களின் தன்மைகளை அறிதல்.
CO – 3	பக்தி மற்றும் சிற்றிலக்கியங்களின் தன்மைகளை உணர்தல்.
CO – 4	உரையாசிரியர்களின் பணிகளை அறிய முடியும்.
CO – 5	தற்கால இலக்கியங்களின் வகைமைகளை அறிதல்.

CO NO	Course Outcomes சிறுநிலக்கியம் – T3CTA14
CO – 1	சிறுநிலக்கியத்தின் இலக்கணத்தை அறிதல்.
CO – 2	சிறுநிலக்கியங்களின் பாடுபொருள்களைத் தெரிந்து கொள்ளுதல்.
CO – 3	தமிழ் இலக்கிய வளர்ச்சிக்கு சிறுநிலக்கியங்கள் ஆற்றிய பங்களிப்பை அறிதல்.
CO – 4	பரணி இலக்கிய காலத்தில் இருந்த போர்முறைகளை உணர்தல்.
CO – 5	உழவர்களின் சிறப்பினை பள்ளு இலக்கியத்தின் வழி உணர்தல்.

CO NO	Course Outcomes திரைப்படக்கலை – T3STA4 (SSP)
CO – 1	சினிமாவின் மூலம் சமூகப்புரட்சி ஏற்பட்டதை தெரிந்து கொள்ளுதல்.
CO – 2	கேமராவின் இயல்புகளை அறிந்து கொள்ளுதல்.
CO – 3	சினிமாவின் தன்மைகளைத் தெரிய இயலும்.
CO – 4	அரசியலில் சினிமாவின் பங்களிப்பினைத் தெரிந்து கொள்ளுதல்
CO – 5	சினிமாவைப் பற்றிய உண்மைகளை அறிய இயலும்.

CO NO	Course Outcomes செவ்வியல் இலக்கியங்கள்– U3CTA19
CO – 1	தமிழ்ச் செம்மொழியின் பண்புகளை அறிதல்.
CO – 2	செவ்வியல் இலக்கிய சிறப்புகளை உணர்தல்.
CO – 3	உலகச் செம்மொழிகளை விளங்கிக் கொள்ள முடியும்.
CO – 4	செவ்வியல் இலக்கியக் கூறுகளை அறிதல்.
CO – 5	செம்மொழிகளின் பாடுபொருள் சிறப்பை உணர்தல்.

CO NO	Course Outcomes பண்டைய இலக்கியம் – U3CTA20
CO – 1	பழங்கால மக்களின் வாழ்வியல் பண்பாட்டினை அறிய இயலும்.
CO – 2	பண்டைய இலக்கியங்களின் வாயிலாக வரலாற்றை உணர்தல்.
CO – 3	பண்டைய கால வளங்களை அறிதல்.
CO – 4	சங்ககால மக்களின் அகவாழ்வை அறிதல்.
CO – 5	சங்க மக்களின் புறவாழ்வியல் நெறிகளை உணர்தல்.

CO NO	Course Outcomes போட்டித் தேர்வுத் தமிழ் – U3CTA17
CO – 1	தமிழ் இலக்கியத்தை எளிமையாகக் கற்க இயலும்.
CO – 2	போட்டித் தேர்வுக்கு இலக்கிய வினாவைக் கற்றல்.
CO – 3	போட்டித்தேர்வுக்கு தயார்படுத்திக் கொள்ள முடியும்.
CO – 4	வேலைவாய்ப்பினை எளிமையாகப் பெற முடியும்.
CO – 5	அரசுத் தேர்வுகளுக்கு தங்களை தயார்படுத்திக் கொள்ளல்.

CO NO	Course Outcomes நாட்டுப்புறவியல் – U3CTA21
CO – 1	நாட்டுப்புற இலக்கியத்தின் வரலாற்றினை அறிதல்.
CO – 2	நாட்டுப்புற பாடல்களின் வாயிலாக மக்களின் தேவையை அறிதல்.
CO – 3	நாட்டுப்புற மக்கள் என்று அழைக்கப்படுவதன் காரணத்தைப் புரிந்துகொள்ள முடியும்.
CO – 4	நாட்டுப்புற மருத்துவத்தை அறிய இயலும்.
CO – 5	நாட்டுப்புற நம்பிக்கைகளை அறிய முடியும்.

CO NO	Course Outcomes பேச்சுக்கலை-U3STA4 (SSP)
CO – 1	பேச்சுக்கலையின் வரலாறு அறிதல்.
CO – 2	மேடைப்பேச்சின் வகைகளைக் கற்றல்.
CO – 3	பேச்சாளருக்குரிய தகுதிகளைப் பெறுதல்.
CO – 4	பேச்சாளராக தன்னை தயார்படுத்துதல்.
CO – 5	சிறந்த சொற்பொழிவாற்றுதல்.

### M.A TAMIL - APTA

PO NO	Programme Outcomes
PO – 1	இலக்கிய, இலக்கணங்களை செம்மையாக அறிந்துகொள்ளல்.
PO – 2	அறநெறிகளை உணர்ந்து கொள்ள இயலும்.
PO – 3	தமிழர்களின் பண்பாடு,கலாச்சாரங்களை அறிந்துகொள்ள முடியும்.
PO – 4	நாட்டுப்புற இலக்கியங்களை வாழ்வியலோடு பொருத்திப் பார்க்க இயலும்.
PO – 5	ஊடகத்தில் பணி வாய்ப்பைப் பெறுதல்.

PSO NO	Programme Specific Outcomes
PSO – 1	தமிழின் தொன்மைகளையும், பெருமைகளையும் உலகிற்கு அறிமுகப்படுத்த இயலும்.
PSO – 2	தமிழ் இலக்கணங்களின் வழி தெளிவாக உச்சரிக்கும் தன்மையைப் பெறுதல்.
PSO – 3	பேச்சாளராக, படைப்பாளராக உருவாக வழிவகை செய்தல்.
PSO – 4	பழங்கால அரசியல் நிலையை அறிந்துகொள்ள முடியும்.
PSO – 5	பத்திரிகை அலுவலக வேலைவாய்ப்பில் முன்னுரிமை.

CO NO	Course Outcomes இக்கால இலக்கியம் – P6CTA9
CO – 1	தற்காலக் கவிதைகளின் பாடுபொருள்களை அறிதல்.
CO – 2	சிறுகதையின் அமைப்பு, கதைக்கரு பற்றி அறிந்து கொள்ளல்.
CO – 3	நாவல் இலக்கிய வகைகளை அறிதல்.
CO – 4	உரைநடை இலக்கியத்தின் தேவையை உணர்தல்.
CO – 5	நாடகத்தின் தோற்றத்தை அறிய இயலும்.

CO NO	Course Outcomes தொல்காப்பியமும் மொழியியலும் (எழுத்து) – P6CTA2
CO – 1	தொடக்க கால எழுத்திலக்கண மரபை அறிந்து கொள்ள இயலும்.
CO – 2	எழுத்துக்களின் பிறப்பு, புணர்ச்சி இலக்கணத்தைப் புரிந்து கொள்ள முடியும்.
CO – 3	எழுத்திலக்கணம் மற்றும் மொழியியலின் தேவையை உணர்தல்.
CO – 4	தமிழ் இலக்கண நூல்களின் வகைமைகளைக் கண்டறிய முடியும்.
CO – 5	மேலைநாட்டாரின் மொழியியல் சிந்தனைகளைத் தெரிந்துகொள்ள முடியும்.

CO NO	Course Outcomes தமிழ் இலக்கிய வரலாறு-P6CTA8
CO - 1	தமிழ்மொழியின் இலக்கிய வகைகளையும் நுட்பங்களையும் உணர்ந்து கொள்ள முடியும்.
CO - 2	இலக்கியங்கள் உணர்த்தும் உண்மையை அறிதல்.
CO - 3	தமிழ்மொழியின் வரலாற்றை கால அடிப்படையில் அறிய இயலும்.
CO - 4	காப்பியங்களின் தன்மை மற்றும் வகைகளை அறிந்துகொள்ள முடியும்.
CO - 5	நாடகம், கதை, பாட்டிலக்கியங்களை நுட்பமாக அறிதல்.

CO NO	Course Outcomes பக்தி இலக்கியம்- P6CTA10
CO - 1	ஆன்மிகக் கருத்தக்களின் வழி மனதினைச் செம்மையுறச் செய்ய இயலும்.
CO - 2	பக்தி இலக்கியக் காலத்தில் இருந்த சமுதாய நிலையை அறிந்துகொள்ள முடியும்.
CO - 3	இலக்கியங்கள் புலப்படுத்தும் இறைப் பொதுமையை உணர முடியும்.
CO - 4	சைவ, வைணவக் கொள்கைகளை அறிய முடியும்.
CO - 5	வைணவப் பாடல்களின் சூழலியல் சிந்தனைகளை அறிய இடமுண்டு.

CO NO	Course Outcomes தொடர்பியல் அறிமுகம் - P6ETA2
CO - 1	தொடர்பியல் நோக்கங்களை அறிய முடியும்.
CO - 2	தொடர்பியலில் ஒலிகள், குறியீடுகளின் முக்கியத்துவத்தை அறிதல்.
CO - 3	தொடர்பு வகைகள்,வடிவங்களை அறிந்துகொள்ள இயலும்.
CO - 4	தொடர்பாளர்களின் பண்புகளை அறிந்து கொள்ளுதல்.
CO - 5	தொடர்பியல் மாதிரிகளை அறிய முடியும்.

CO NO	Course Outcomes தொல்காப்பியமும் மொழியியலும் (சொல்) – Q6CTA9
CO – 1	சொல்லிலக்கணத்தை உணர முடியும்.
CO – 2	வேற்றுமை இலக்கணங்களின் வழியாக பிழையின்றி எழுதக் கற்றுக்கொள்ள முடியும்.
CO – 3	தமிழ்ச் சொற்களின்மரபு, திரிபுகளை அறிந்து கொள்ள இயலும்.
CO – 4	மொழியியல் உணர்த்தும் உருபன் குறித்துத் தெரிந்துகொள்ள முடியும்.
CO – 5	மொழியியலாளர்களின் மாற்றிலக்கணங்களை அறிய இடமுண்டு.

CO NO	Course Outcomes சிறுநிலக்கியம் - Q6CTA13
CO – 1	சிறுநிலக்கிய வரையறைகளை அறிதல்.
CO – 2	சிறுநிலக்கியத் தோற்றப் பின்னணியை தெரிந்துகொள்ள முடியும்.
CO – 3	சிறுநிலக்கியத்தின் உத்திகளைத் தெரிந்து கொள்ளல்.
CO – 4	சிறுநிலக்கியச் சமுதாயப் பின்புலத்தைத் தெரிந்து கொள்ளலாம்.
CO – 5	தூது, பரணி இலக்கணத்தை அறிய இயலும்.

CO NO	Course Outcomes நாட்டுப்புறவியல் - Q6CTA14
CO – 1	வாய்மொழி இலக்கியத்தின் தனிச்சிறப்பை உணர முடியும்.
CO – 2	நாட்டுப்புறக் கலைகளின் மூலம் தொழில் வாய்ப்பை செயல்படுத்த முடியும்.
CO – 3	நாட்டுப்புற இயலின் மேன்மையை விளங்கிக் கொள்ளல்.
CO – 4	நாட்டுப்புற மக்களின் பழக்க வழக்கங்களை அறிதல்.
CO – 5	நாட்டுப்புறக் கோட்பாடுகளை அறிய இயலும்.

CO NO	Course Outcomes இலக்கியத் திறனாய்வு – Q6CTA15
CO – 1	திறனாய்வுப் பணி மற்றும் பண்புகளை அறிதல்.
CO – 2	இலக்கியப் படைப்பாளியின் ஆளுமைகளை அறிந்துகொள்ள முடியும்.
CO – 3	இலக்கிய இயக்கங்களின் நோக்கங்களை தெரிதல்.
CO – 4	தற்கால இலக்கியங்களில் திறனாய்வுப் போக்குகளைப் புகுத்திப் பார்க்கலாம்.
CO – 5	இலக்கியத் திறனாய்வுக் கொள்கைகளை அறிதல்.

CO NO	Course Outcomes அச்ச மின்னணு ஊடகங்கள் - Q6ETA3
CO – 1	தொடக்க காலப் பத்திரிகைகளை அறிதல்
CO – 2	தொடக்ககால ஆசிரியர்களை அறிய இயலும்.
CO – 3	செய்தி, செய்திக் கூறுகளைத் தெரிந்து கொள்ள முடியும்.
CO – 4	பத்திரிகைச் சட்டங்களைத் தெரிதல்.
CO – 5	ஊடகங்கள் வெளிப்படுத்தும் கல்வி ஒளிப்பரப்பை கற்றல்.

CO NO	Course Outcomes இலக்கணம் பொருள் - 1 – R6CTA9
CO – 1	சங்ககால மக்களின் வாழ்வியலை உணர்ந்து கொள்ள முடியும்.
CO – 2	பழந்தமிழரின் இலக்கிய நயங்களை அறிதல்.
CO – 3	அகத்திணை மாந்தர்களை அறிந்துகொள்ள இயலும்.
CO – 4	தமிழ் இலக்கண மரபை அறிதல்.
CO – 5	பண்டைத் தமிழர்களின் பண்பாட்டிணைப் உணர முடியும்.



CO NO	Course Outcomes காப்பிய இலக்கியம் - R6CTA16
CO – 1	காப்பிய இலக்கியங்களின் தோற்றம், வளர்ச்சி குறித்து அறிதல்
CO – 2	ஐம்பெருங்காப்பியங்களை அறிதல்
CO – 3	காப்பியக்கால மக்களின் வாழ்வியல் முறைகளை அறிதல்
CO – 4	ஒருமைப்பாட்டுணர்வைப் புரிந்து கொள்ளுதல்.
CO – 5	காப்பியக் காலச் சமுதாயம் உணர்த்தும் வாழ்வியல் உண்மைகளை உணர்தல்.

CO NO	Course Outcomes அற இலக்கியம்- R6CTA17
CO – 1	அற இலக்கிய நூல்களைத் தெரிந்து கொள்ளல்.
CO – 2	அற இலக்கியத்தின் தேவையை உணர்தல்.
CO – 3	எக்காலத்திற்கும் பொருந்துகின்ற அறத்தைக் கற்றல்.
CO – 4	நிலையாமைக் கருத்துக்களை உணர்தல்.
CO – 5	அறத்தின் வழி வாழ்க்கையை அமைக்கக் கற்றுக் கொள்ளல்.

CO NO	Course Outcomes தமிழ்ச் செம்மொழிகள்- R6CTA18
CO – 1	செம்மொழியின் பொதுமைப் பண்புகளை தெரிந்து கொள்ளுதல்.
CO – 2	உலகச் செம்மொழிகளை அறிந்துகொள்ள இயலும்.
CO – 3	செம்மொழித் தொகையாக்கங்கள் பற்றி அறிய இயலும்.
CO – 4	தமிழின் செம்மொழி நூல்களைத் தெரிந்துகொள்ள முடியும்.
CO – 5	செம்மொழி இலக்கியப் பாடுபொருள்களை அறிய இயலும்.

CO NO	Course Outcomes விளம்பர அடிப்படைகள் புதிய பரிமாணங்கள் - R6ETA4
CO – 1	மக்கள் தொடர்பு அறிஞர்களின் கருத்துக்களை தெரிதல்.
CO – 2	விளம்பரத்தைப் பற்றிய அறிவைப் பெற இயலும்.
CO – 3	விளம்பரத்தாக்கத்தை உணர்தல்.
CO – 4	வர்த்தக இதழியல் பற்றித் தெரிந்து கொள்ளுதல்.
CO – 5	தொடர்பு கோட்பாடுகளை அறிதல்.

CO NO	Course Outcomes இலக்கணம் பொருள் - 2 – S6CTA13
CO – 1	திணை, துறைகளை மாணவர்கள் அறிய இயலும்.
CO – 2	போர் பற்றிய சிந்தனைகளை அறிந்து கொள்ளுதல்.
CO – 3	மெய்ப்பாட்டின் வகைகளைக் கற்றுக் கொள்ளுதல்.
CO – 4	வண்ணம்,வனப்பை உணர்தல்.
CO – 5	மரபியலின் தன்மைகளை உணர்ந்துகொள்ள முடியும்.

CO NO	Course Outcomes சங்க இலக்கியம் - S6CTA18
CO – 1	பழந்தமிழ் இலக்கியங்களைக் கற்றல்
CO – 2	பழந்தமிழரின் வாழ்வியல் முறைகளை உணர்தல்
CO – 3	தமிழ் இலக்கியக் கொள்கைகளை அறிதல்.
CO – 4	இலக்கிய இன்பம் பெறுதல்
CO – 5	மன்னர் புலவர் உறவு வழி இயங்கிய சமுதாயத்தைக் காணுதல்

CO NO	Course Outcomes தமிழர் நாகரிகமும் பண்பாடும் - S6CTA19
CO – 1	பண்டைத் தமிழரின் வாழ்க்கைக் கொள்கைகளை உணர்தல்
CO – 2	பண்டைத் தமிழரின் வாழ்வியலை அறிதல்
CO – 3	பண்பாட்டில் சமயங்களின் பங்களிப்பினை புரிந்து கொள்ள முடியும்.
CO – 4	தமிழரின் நாகரிகத்தையும் பண்பாட்டையும் அறிய இயலும்.
CO – 5	தமிழர் சமூகம் பண்பாட்டில் அடைந்த மாற்றங்களை கற்றுக்கொள்ள முடியும்.

CO NO	Course Outcomes ஆளுமைத்திறனும் கோட்பாடுகளும் - S6CTA20
CO – 1	ஆளுமை பற்றிய அறிஞர்களின் விளக்கங்களை அறிய முடியும்.
CO – 2	இலக்கியத்தில் ஆளுமையின் வளர்ச்சியை தெரிந்து கொள்ளுதல்.
CO – 3	ஆளுமைத்திறன் மேம்படும்.
CO – 4	ஆளுமை வகைகளை அறிதல்.
CO – 5	ஆளுமைக் கோட்பாடுகளை புரிந்து கொள்ளுதல்.

CO NO	Course Outcomes மக்கள் தகவல் தொடர்புப் பயிற்சி – S6ETAL2
CO – 1	செம்மையாக்கக் குறியீடுகளை அறிதல்.
CO – 2	பத்திரிகைகளில் மொழிபெயர்ப்பின் இன்றியமையாமையை உணர்தல்
CO – 3	பத்திரிகையின் கூறுகளை எழுதக் கற்றுக் கொள்ளுதல்.
CO – 4	பத்திரிகை உருவாக்கக் கற்றுத்தருதல்.
CO – 5	பத்திரிகை அலுவலகப் பயிற்சிபெற்று செய்தி ஆசிரியராக உருவாக முடியும்.

CO NO	Course Outcomes ஆட்சித்தமிழ் – S6STA2 (SSP)
CO – 1	தமிழ் ஆட்சிமொழியின் வரலாற்றை அறிய முடியும்.
CO – 2	ஆட்சிமொழித் திட்டங்களின் அரசாணைகளை அறிதல்.
CO – 3	ஆட்சிமொழி ஆய்வில் கண்டறியப்பட்ட உண்மைகளை அறிய முடியும்.
CO – 4	தமிழ் வளர்ச்சித் திட்டங்களை அறிதல்.
CO – 5	தமிழ்மொழி வளர்ச்சித் திட்டங்களில் உள்ள நிறை, குறைகளை அறிதல்.

### M.Phil TAMIL - AMTA

PO NO	Programme Outcomes
PO – 1	ஆய்வேட்டின் தன்மையை உணர்தல்.
PO – 2	முதுநிலை ஆராய்ச்சிக்கு முன்மாதிரியாக அமையும்.
PO – 3	ஆய்வியல் நெறிமுறைகளை அறிந்துகொள்ள முடியும்.
PO – 4	ஆய்வியல் கோட்பாடுகளை அறிதல்.
PO – 5	ஆய்வுத் தகவல்களைத் திரட்டும் முறையினை அறிதல்.

PSO NO	Programme Specific Outcomes
PSO – 1	சிறந்த ஆராய்ச்சியாளராக உருவாக வழிவகுத்தல்.
PSO – 2	மேலைநாட்டு ஆராய்ச்சி முறையை ஒப்பிட்டு அறிய முடியும்.
PSO – 3	தமிழ் இலக்கிய ஆராய்ச்சி நெறிமுறைகளை முழுமையாக அறிய முடியும்.
PSO – 4	ஆராய்ச்சிப் பணியில் சிறந்து விளங்குதல்.
PSO – 5	மாணவர்களுக்கு சிறந்த நெறியாளராக அமைதல்.

CO NO	Course Outcomes ஆய்வியல் நெறிமுறைகள் - P9TA1
CO – 1	ஆராய்ச்சி மாணவர்கள் ஆய்வியல் நெறிமுறைகளையும், அணுகுமுறைகளையும் தெரிந்து கொள்ள முடியும்.
CO – 2	ஆய்வு பற்றிய விளக்கங்களை அறிய இயலும்.
CO – 3	ஆய்வேட்டின் வடிவமைப்பை புரிந்து கொள்ளுதல்.
CO – 4	கள ஆய்வின் தேவைகளை உணர்தல்.
CO – 5	தற்கால ஆய்வுப் போக்குகளை அறிந்து கொள்ளுதல்.

CO NO	Course Outcomes இலக்கியத் திறனாய்வியல் - சில அணுகுமுறைகள் - P9TA4
CO – 1	இலக்கியத் திறனாய்வியலை மாணவர்களுக்கு எடுத்துரைத்தல்.
CO – 2	இலக்கியப் படைப்பாளிகளின் ஆளுமையை விளக்குதல்.
CO – 3	இலக்கியத்தின் பயன்களைத் தெரிந்து கொள்ளுதல்.
CO – 4	தொல்காப்பியரின் இலக்கியக் கொள்கைகளை விவரித்தல்.
CO – 5	உரையாசிரியர்களின் திறனாய்வுப் போக்குகளை அறிதல்.

CO NO	Course Outcomes பாரதியார் பன்முகப்பார்வை - Q9TA5
CO – 1	பாரதியாரின் வாழ்க்கை வரலாற்றை அறிந்து கொள்ளல்.
CO – 2	பாரதியின் ஞானப்பாடல்களை அறிய இயலும்.
CO – 3	பாரதி கண்ட புதுமைப்பெண்ணின் கோணங்களைத் தெரிந்து கொள்ளல்.
CO – 4	பாரதநாட்டின் நிலையை அறிதல்.
CO – 5	பாரதியார் கண்ணன் மீது கொண்டிருந்த நேசத்தை அறிய முடியும்.

## DEPARTMENT OF ENGLISH (AIDED)

### PART II ENGLISH - B.A. / B.Sc. / B.Com.

PSO NO	Programme Specific Outcomes
PSO – 1	Through prose, the reader observes the narrative style and structure of the language and has the opportunity to learn varied vocabularies in the context.
PSO – 2	Literary art forms like tone, form, genre, imagery, figures of speech, symbolism and theme are analyzed and appreciated through Poetry.
PSO – 3	Group activity enlivening performing skills are motivated through One-act plays. And Short Stories reflect the society and psychological aspects of characters inflicting deep-rooted values and philosophical messages.

<b>PSO – 4</b>	Biographies are prescribed to relive the lives of inspiring people.
<b>PSO – 5</b>	Each student is able to write unified, coherent paragraphs with details, examples, and evidence to support and clarify generalizations through learning composition.

<b>CO NO</b>	<b>Course Outcomes PART II ENGLISH – P2EN7</b>
<b>CO – 1</b>	To enhance language through the prose pieces of Canadian, American and Indian writers.
<b>CO – 2</b>	To strengthen the young minds to be adroit in difficult situation and to educate the values of harmonial relationship between man and nature
<b>CO – 3</b>	To enjoy reading Milton and the value of worship and patience, to appreciate Shakespeare and the facets of mankind at every stage of life and to highlight the quality of a teacher and the taught and the role of formal learning the holistic development of mankind
<b>CO – 4</b>	To know about the types of Nouns and Verbs and to improve their grammar knowledge with many exercises
<b>CO – 5</b>	To develop the lexical knowledge through Synonyms and Antonyms
<b>CO – 6</b>	To educate students the modality of how to greet, request, inform and instruct and to enable the students recognize the types of letters, its elements and its application.
<b>CO – 7</b>	To compose personal and business letters and to practice letter writing skills needed for exam success

<b>CO NO</b>	<b>Course Outcomes PART II ENGLISH – Q2EN8</b>
<b>CO – 1</b>	To distinguish the writing style and thematic patterns of Indian, British, Scottish writers
<b>CO – 2</b>	To enlighten knowledge through prose on an Indian historical event of S.C.Bose, to know how to be a good human for family and society, and to know the values of tiny things.
<b>CO – 3</b>	To introduce Indian poets and their arena of imagination so as to appreciate native sentiments and to know the importance of family relationships, the awareness for the students that human and nature are inseparable.
<b>CO – 4</b>	To identify the singular and plural subjects and verbs in sentences and to understand how adverbs enhance a sentence.
<b>CO – 5</b>	To improve students' verbal ability and preparation for competitive exams and to investigate the difference between British English and American English on the basis of vocabulary and spelling

<b>CO – 6</b>	To enhance reading and comprehending skills through passages
<b>CO – 7</b>	To improve the skills of pronunciation and spelling through reading and writing and to enhance syntactical knowledge through jumbles words and sentences

<b>CO NO</b>	<b>Course Outcomes PART II ENGLISH – R2EN9</b>
<b>CO – 1</b>	To relive the moments of passion and sentiments of the creative writers of Indian short fiction
<b>CO – 2</b>	To impart a sense of social responsibility and self-belief through short stories and to implant the principles of social equalities
<b>CO – 3</b>	To inspire goal setting and determination through biographies of eminent personalities and to peep a glance into history of Britain, America and India through the perspectives of these role models
<b>CO – 4</b>	To educate the uses of articles ‘a’, ‘an’ and ‘the’. To distinguish the past, the present and the future tenses with verbs and to practice the formation of verbs in relationship with time, place and action
<b>CO – 5</b>	To identify the meaning of word transformation in lieu with prefix and suffix and to demonstrate the mastery of new vocabulary in sentences
<b>CO – 6</b>	To correspond with frequently used foreign words in English thereby raising awareness among students on loan words in English language
<b>CO – 7</b>	To train speaking skills through dialogue writing and short skits with chosen situations of day-to-day life and to drill on reading and summarizing skills through Précis Writing

<b>CO NO</b>	<b>Course Outcomes PART II ENGLISH – S2EN10</b>
<b>CO – 1</b>	To become aware of the destructive class consciousness deep-rooted in the society and the need for transformation of mind through painful narratives
<b>CO – 2</b>	To enjoy reading thriller story and kindle imagination for solution through twists and turns and to teach the values of trust and loyalty in friendship
<b>CO – 3</b>	To understand the concepts of Coveting and losing, Love conquering all and dissuading over ambitiousness
<b>CO – 4</b>	To differentiate the active voice and passive voice and practice transformation of sentences in appropriation to certain contexts and to make out prepositions of time, place, action and prepositional phrases



<b>CO – 5</b>	To understand and recognize the meaning of the idioms and phrases and write sentences using Idioms and Phrases. To improve lexis identification through learning pairs of words
<b>CO – 6</b>	To train up the writing skills through exercise of hints developing and to boost up the creativity of story writing by using hints
<b>CO – 7</b>	To teach the importance of taking notes and thereby keep them active and engaging during reading hours and lectures

## **DEPARTMENT OF MATHEMATICS (AIDED)**

### **B.Sc MATHEMATICS - AUMA**

<b>PO NO</b>	<b>Programme Outcomes</b>
<b>PO – 1</b>	To acquire knowledge in various aspect of mathematics.
<b>PO – 2</b>	To compute the algebraic, geometric and statistical quantities using suitable tools.
<b>PO – 3</b>	To comprehend the mathematical tools from basic axioms.
<b>PO – 4</b>	To realize the mathematical applications in other fields.
<b>PO – 5</b>	To attain analytic thinking.

<b>PSO NO</b>	<b>Programme Specific Outcomes</b>
<b>PSO – 1</b>	To inculcate the proficiency of writing proofs in pure mathematics papers through assignments.
<b>PSO – 2</b>	To acquire knowledge in analysis which include numbers, sets, functions and convergence.
<b>PSO – 3</b>	To motivate the students in order to acquire knowledge in aptitude examinations. Nurture the skill of understanding and explaining the theorems in right way through seminars.
<b>PSO – 4</b>	To nurture the skill of understanding and explaining the theorems in right way through seminars.
<b>PSO – 5</b>	To inculcate the logical thinking and quantitative aptitude

<b>CO NO</b>	<b>Course Outcomes ANALYTICAL GEOMETRY 3D &amp; VECTOR CALCULUS – P3CMA3</b>
<b>CO – 1</b>	To attain knowledge about the angles and planes in two dimensional.
<b>CO – 2</b>	To calculate the shortest distance between two lines.
<b>CO – 3</b>	To get vast knowledge about the sphere.
<b>CO – 4</b>	To discuss about the vector differentiation (Gradient, Curl and Divergence).
<b>CO – 5</b>	To demonstrate an understanding of the Green's theorem and Stroke's theorem and also to know about the detailed study of vector integration.

<b>CO NO</b>	<b>Course Outcomes CALCULUS &amp; TRIGNOMETRY – P3CMA2</b>
<b>CO – 1</b>	To describe the concepts of curvature, evolutes and envelopes.
<b>CO – 2</b>	To discriminate the multiple integrals and beta, gamma functions.
<b>CO – 3</b>	To gain Knowledge in the expansion of $\sin nx$ , $\cos nx$ and $\tan nx$ .
<b>CO – 4</b>	To explain the concept of hyperbolic function and logarithm of a complex number.
<b>CO – 5</b>	To understand the ideas of fourier series and trigonometric series.

<b>CO NO</b>	<b>Course Outcomes CLASSICAL ALGEBRA – Q3CMA5</b>
<b>CO – 1</b>	To acquire knowledge about sequence and the concept of algebra of limits.
<b>CO – 2</b>	To learn about the different kinds of series.
<b>CO – 3</b>	To solve the problems using root test and ratio test.
<b>CO – 4</b>	To develop the skills for solving the reciprocal equations.
<b>CO – 5</b>	To gain knowledge about concept of diminishing and increasing the roots.

<b>CO NO</b>	<b>Course Outcomes DIFFERENTIAL EQUATIONS – Q3CMA4</b>
<b>CO – 1</b>	To understand the methods in solving the linear differential equations with constant coefficient.
<b>CO – 2</b>	To determine the methods in solving the linear differential equations with variable coefficient. Know about the method of solving differential equation using variation of parameters.
<b>CO – 3</b>	To solve the first order and first degree order differential equations, simultaneous linear equations with constant coefficient and total differential equations.
<b>CO – 4</b>	To solve the first order partial differential equations for some standard types.
<b>CO – 5</b>	To understand the concept of Laplace transform and its application in solving differential equations. Use inverse Laplace transform to return formation funs.

<b>CO NO</b>	<b>Course Outcomes MODERN ALGEBRA – R3CMA5</b>
<b>CO – 1</b>	To clarify Mathematical Principles of general algebraic structure of various sets such as real numbers, complex numbers etc.
<b>CO – 2</b>	To express a central role of cosets in Lagrange's theorem.
<b>CO – 3</b>	To compare the properties of isomorphic groups.
<b>CO – 4</b>	To acquire knowledge about algebraic structure of ring.
<b>CO – 5</b>	To analyze the properties of an integral domain.

<b>CO NO</b>	<b>Course Outcomes PROGRAMMING IN C – R3EMA1</b>
<b>CO – 1</b>	To develop programming skills using the fundamentals and basic of C language.
<b>CO – 2</b>	To study the advantages of user data type that provides flexibility for application development.
<b>CO – 3</b>	To enable to usage of arrays, structure and functions.
<b>CO – 4</b>	To apply pointer concepts in C.
<b>CO – 5</b>	To write the program that perform operations using file.

<b>CO NO</b>	<b>Course Outcomes PROGRAMMING IN C PRATICALS – R3EMAL1</b>
<b>CO – 1</b>	To write the C code for a given algorithm
<b>CO – 2</b>	To write a program to print different data types in C of their ranges.
<b>CO – 3</b>	To know about the concepts in problem solving.
<b>CO – 4</b>	To do programming in C language.
<b>CO – 5</b>	To write diversified solutions using C languages.

<b>CO NO</b>	<b>Course Outcomes MS OFFICE</b>
<b>CO – 1</b>	To navigate the word processor to create word documents for office use.
<b>CO – 2</b>	To understand the basic concepts of find and replace, tool base, Header& Footer.
<b>CO – 3</b>	To understand the basic machines and navigation of an Excel spread sheet and signing a work sheet for the organization purpose.
<b>CO – 4</b>	To apply the knowledge of mathematical functions and make the calculation easier for enormous data.
<b>CO – 5</b>	To familiarize the basic concepts and appreciate the application of data base system.

<b>CO NO</b>	<b>Course Outcomes MS OFFICE PRATICALS</b>
<b>CO – 1</b>	To have clear understanding about design a document using MS Word.
<b>CO – 2</b>	To create different types of chart for sum data by using MS Excel.
<b>CO – 3</b>	To perform mathematical function by using MS Excel.
<b>CO – 4</b>	To learn to create the document into slide-show by using MS PowerPoint.
<b>CO – 5</b>	To have clear understanding about Executing Queries by using MS Access.

<b>CO NO</b>	<b>Course Outcomes MATHEMATICS FOR COMPETATIVE EXAMS I – R4NMA1 (NME)</b>
<b>CO – 1</b>	To learn about HCF, LCM, Square roots and Cube roots and problems on numbers.
<b>CO – 2</b>	To solve problems on ages, percentages, profit and loss, partnership.
<b>CO – 3</b>	To solve the problems on chain rule, simple and compound interest.
<b>CO – 4</b>	To understand series completion and coding decoding, Blood relations problems.
<b>CO – 5</b>	To compute puzzle test, Direction sense test and Logical Venn diagrams.

<b>CO NO</b>	<b>Course Outcomes ANCILLARY MATHEMATICS I – R3AMA2</b>
<b>CO – 1</b>	To gain knowledge about the concept of binomial and exponential series.
<b>CO – 2</b>	To determine the reciprocal equation and transformation of equation.
<b>CO – 3</b>	To describe the concept of radius of curvature and center of curvature.
<b>CO – 4</b>	To discriminate the integral calculus and reduction formula.
<b>CO – 5</b>	To understand the ideas of Demovier's theorem and hyperbolic function

<b>CO NO</b>	<b>Course Outcomes REAL ANALYSIS – S3CMA6</b>
<b>CO – 1</b>	To outline the knowledge of fundamental properties in metric space.
<b>CO – 2</b>	To discuss deeply about the concepts of continuous functions between spaces.
<b>CO – 3</b>	To carry out the facts in a compactness and completeness of a metric space.
<b>CO – 4</b>	To construct the facts about the connected subsets of real numbers.
<b>CO – 5</b>	To demonstrate an understanding of the Baire’s category theorem and cantor intersection theorem.

<b>CO NO</b>	<b>Course Outcomes PROGRAMMING IN C++ – S3EMA3</b>
<b>CO – 1</b>	To implement object oriented programming concept using basic syntaxes of control structures, strings and function for developing skills of logic building activity.
<b>CO – 2</b>	To identify classes, objects, members of a class and the relationships among them needed for finding the solution to specific problem.
<b>CO – 3</b>	To demonstrate how to achieve reusability using inheritance, virtual base classes and describes faster application development can achieved.
<b>CO – 4</b>	To understanding the use of different exception handling mechanics.
<b>CO – 5</b>	To know about the importance of classes and objects along with constructors, arrays and functions.

<b>CO NO</b>	<b>Course Outcomes PROGRAMME IN C++ PRATICALS – S3EMAL2</b>
<b>CO – 1</b>	To understand the difference between top-down and bottom – up approach.
<b>CO – 2</b>	To apply the concepts of object-orientation programming in constructor and destructor.
<b>CO – 3</b>	To understand how to apply the major Object-oriented concepts to implement inheritance.
<b>CO – 4</b>	To read and write data from files in C++ programs.
<b>CO – 5</b>	To write a program to operator overloading.

<b>CO NO</b>	<b>Course Outcomes RELATIONAL DATA BASE MANAGEMENT SYSTEM</b>
<b>CO – 1</b>	To understand about traditional approach to information processing. Use of database DBMS, data manipulation language.
<b>CO – 2</b>	To compete the Database models, hierarchical network DBMS environment.
<b>CO – 3</b>	To demonstrate to build a database, creating opening, database entering data, EXACT searching.
<b>CO – 4</b>	To editing and modifying database, creating and printing formatted, multiple data file.
<b>CO – 5</b>	To analyze file maintenance performance memory variable command file creation.

<b>CO NO</b>	<b>Course Outcomes RELATIONAL DATA BASE MANGEMENT SYSTEM PRATICAL</b>
<b>CO – 1</b>	To demonstrate an understanding of the elementary feature of RDBMS.
<b>CO – 2</b>	To design conceptual models of a data base using ER modelling for real life application.
<b>CO – 3</b>	To develop structured query language.
<b>CO – 4</b>	To design efficient PL/SQL programs to access database.
<b>CO – 5</b>	To implement a database scheme for a given problem domain.

<b>CO NO</b>	<b>Course Outcomes MATHEMATICS FOR COMPETATIVE EXAM II– S4NMA2 (NME)</b>
<b>CO – 1</b>	To know about time and work, time and distance and Boats and streams.
<b>CO – 2</b>	To acquire knowledge Alligation of mixture and race games of skill.
<b>CO – 3</b>	To understand the concept of permutation and combinations, probability and heights and distance.
<b>CO – 4</b>	To gain knowledge about Mathematical operations, Arithmetical reasoning.
<b>CO – 5</b>	To solve the problems logic type I and type II.

<b>CO NO</b>	<b>Course Outcomes ANCILLARY MATHEMATICS II – S3AMA3</b>
<b>CO – 1</b>	To compare and contrast the vector differentiation and their properties.
<b>CO – 2</b>	To get the knowledge about the vector integration through the simple applications of Gauss, Green and Stroke's theorem.
<b>CO – 3</b>	To attain the details of vector differentiation and also the integrating factors.
<b>CO – 4</b>	To know the methods of finding complementary functions and to find the second order differential equations with RHS in the trigonometric form.
<b>CO – 5</b>	To acquire Laplace Transform, partial differential equations, Lagrange's equation.

<b>CO NO</b>	<b>Course Outcomes ASTRONOMY – S3SMA1(SSP)</b>
<b>CO – 1</b>	To learn about celestial sphere.
<b>CO – 2</b>	To know about the Earth.
<b>CO – 3</b>	To gain knowledge about calendar.
<b>CO – 4</b>	To study about the Moon.
<b>CO – 5</b>	To analyze the Eclipses.

<b>CO NO</b>	<b>Course Outcomes OPERATIONS RESEARCH – T3CMA7</b>
<b>CO – 1</b>	To analyze and solve linear programming models of real life situations.
<b>CO – 2</b>	To know about the relationship between the primal and dual problems.
<b>CO – 3</b>	To learn about the applications to transportation and assignment problems.
<b>CO – 4</b>	To find inventory decisions costs using deterministic inventory problems with no shortage with shortages.
<b>CO – 5</b>	To acquire knowledge about the usage of game theory and simulation for solving real life problems.



<b>CO NO</b>	<b>Course Outcomes COMPLEX ANALYSIS – T3CMA8</b>
<b>CO – 1</b>	To compute sums, products, quotients, conjugate, modulus, argument of complex numbers, and write complex numbers in polar form.
<b>CO – 2</b>	To understand and analyze the complex functions, limits and continuity, differentiability, Cauchy – Riemann equations and analyticity.
<b>CO – 3</b>	To construct the elementary transformation and bilinear transformations, define cross ratio and find fixed points of bilinear transformations.
<b>CO – 4</b>	To understand the theory and techniques of integration, use Cauchy's integral theorem and identify the isolated singularity such as removable, poles, or essential.
<b>CO – 5</b>	To Find residues and evaluate complex integrals using the residue theorem, understand uses of improper integrals.

<b>CO NO</b>	<b>Course Outcomes STATISTICS I – T3CMA9</b>
<b>CO – 1</b>	To understanding the basic concepts of measures of central tendency and dispersion.
<b>CO – 2</b>	To define moments, skewness and kurtosis and to find a straight line.
<b>CO – 3</b>	To acquire knowledge regarding correlation and linear regression.
<b>CO – 4</b>	To learn about the concepts of interpolation and theory of attributes.
<b>CO – 5</b>	To formulate solutions and analyze the use of index numbers.

<b>CO NO</b>	<b>Course Outcomes MECHANICS – T3CMA11</b>
<b>CO – 1</b>	To understanding the concept of D-Alembert's principle and Lagrange's equation.
<b>CO – 2</b>	To demonstrate knowledge and understanding of the fundamental concept in Hamilton's principle.
<b>CO – 3</b>	To acquire knowledge on the conservation theorems and symmetry properties.
<b>CO – 4</b>	To realize importance of impact and impulsive force of a particle on a surface.
<b>CO – 5</b>	To learn the phenomenon of collision and idea about center of mass.

<b>CO NO</b>	<b>Course Outcomes ORACLE – T3EMA6</b>
<b>CO – 1</b>	To explain the features of database management systems and relational database.
<b>CO – 2</b>	To introduce the concepts of basic SQL as a universal data base language.
<b>CO – 3</b>	To analyze the existing design of a data base scheme and apply concepts of normalization to design an optimal database.
<b>CO – 4</b>	To retrieve any type of information from a data base by formulation complex queries in SQL.
<b>CO – 5</b>	To create and populate a RDBMS, using SQL.

<b>CO NO</b>	<b>Course Outcomes ORACLE LAB – T3EMAL3</b>
<b>CO – 1</b>	To design and implement a data base scheme for a given problem.
<b>CO – 2</b>	To populate and query a data base using SQL commands.
<b>CO – 3</b>	To create RDBMS with constraints and keys using SQL.
<b>CO – 4</b>	To write a program in PL/SQL including on (Data manipulation language)
<b>CO – 5</b>	To write a program in PL/SQL including DDL (Data Definition language).

<b>CO NO</b>	<b>Course Outcomes JAVA PROGRAMMING</b>
<b>CO – 1</b>	To train students for Java resolution, Java applets, rich object Environment, Oops, Object summary, Java genesis, Hello world, variables.
<b>CO – 2</b>	To analyse data types, simple types, Arrays Exception Looping.
<b>CO – 3</b>	To know about classes, string handling, construction, special string syntax, string buffer, string attached.
<b>CO – 4</b>	To explore about exception handling, Threads and single, Thread event loop, java thread model Thread runnable, File, Input stream. Understanding about streaming I/O, together URL connection.
<b>CO – 5</b>	To demonstrate about applets, Abstract window toolkit, Layout, Imaging.

<b>CO NO</b>	<b>Course Outcomes JAVA LAB</b>
<b>CO – 1</b>	To obtain knowledge about structure and model of the Java programming language.
<b>CO – 2</b>	To use the Java programming language for various programming technologies.
<b>CO – 3</b>	To develop software in the Java programming language.
<b>CO – 4</b>	To choose an engineering approach to solving problem, starting from the required knowledge of programming.
<b>CO – 5</b>	To use the certain technologies by implementing them in the Java programming language to solve the given problem.

<b>CO NO</b>	<b>Course Outcomes ANCILLARY MATHEMATICS III – T3AMA3</b>
<b>CO – 1</b>	To know about the analytic function and Cauchy Riemann equation and also its application.
<b>CO – 2</b>	To compare and contrast of the Rank Co relation co-efficient with statistics and also the Newton methods.
<b>CO – 3</b>	To know detailed study of attributes and Index numbers.
<b>CO – 4</b>	To attain more knowledge about matrices, solution of equations, and also Eigen values and Eigen vectors.
<b>CO – 5</b>	To demonstrate the understanding of the Lagrange's theorem and to study deeply about the groups and punctuation groups.

<b>CO NO</b>	<b>Course Outcomes DISCRETE MATHIMATICS – T3SMA1 (SSP)</b>
<b>CO – 1</b>	To enable the students to learn about the propositions logical operations and constructions of Truth Table and Equivalence and Implications and NAND and NOR.
<b>CO – 2</b>	To analysis the method of functionally complete set and Normal forms and statement calculus and Quantifiers and rule CP.
<b>CO – 3</b>	To compute the Mathematical Induction and Recursion and Iteration and Sequences and Integers.
<b>CO – 4</b>	To understand the Recurrences relations and solving linear homogeneous and non-homogeneous recurrence relation using generating function.

<b>CO – 5</b>	To demonstrate the Hasse Diagram of Partially ordered sets and lattices.
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<b>CO NO</b>	<b>Course Outcomes LINEAR PROGRAMMING PROBLEM – CRMA1(CERTIFICATE COURSE)</b>
<b>CO – 1</b>	To define basic feasible solutions, slack and surplus variable.
<b>CO – 2</b>	To explain simplex big method and two phase method.
<b>CO – 3</b>	To prove dual of the dual in primal interpret dual simplex method.
<b>CO – 4</b>	To illustrate assignment problem and travelling salesman problem.

<b>CO NO</b>	<b>Course Outcomes LINEAR ALGEBRA – U3CMA11</b>
<b>CO – 1</b>	To recognize the concepts of the terms span, linear independence, basis, dimensions and understand the concept of Linear transformations and matrices of linear transformations.
<b>CO – 2</b>	To understand the new terms Basis and Dimensions, define Rank and Nullity
<b>CO – 3</b>	To define the concepts of Inner Product Spaces, define Orthogonality and Orthogonal Complements.
<b>CO – 4</b>	To acquire the knowledge of a matrix, basic operations, rank and determinant of a matrix, solve a system of Linear equations and distinguish between consistent and inconsistent system of equations.
<b>CO – 5</b>	To compute with the characteristic polynomial and equations of a given square matrix familiarize characteristic roots and characteristic vectors.
<b>CO – 5</b>	To define two person sum games maximin minimax principle saddle points.

<b>CO NO</b>	<b>Course Outcomes AUTOMATA THEORY – U3CMA12</b>
<b>CO – 1</b>	To learn fundamentals of regular and context free grammars and languages.
<b>CO – 2</b>	To design different types of finite automata and regular language.
<b>CO – 3</b>	To understand, design and interpret content free languages.
<b>CO – 4</b>	To design different types of push down automata as simple passed.
<b>CO – 5</b>	To compare, understand and analyze different languages, grammar, automata & convert automate to programs and functions.

<b>CO NO</b>	<b>Course Outcomes GRAPH THEORY – U3CMA13</b>
<b>CO – 1</b>	To understand the graph as models. Students gain the knowledge sub graphs, paths, cycles, spanning trees.
<b>CO – 2</b>	To explain Direct graph, types of directed graph. Students gain knowledge about Euler diagraph, fundamental circuits in diagraph.
<b>CO – 3</b>	To understand the concepts of enumeration types of enumeration. Theorems using for enumeration.
<b>CO – 4</b>	To gain the knowledge of contact network, analysis and synthesis of contact network.
<b>CO – 5</b>	To apply the concept of Directed graph in networking problem of operation Research

<b>CO NO</b>	<b>Course Outcomes STATISTICS II – U3CMA14</b>
<b>CO – 1</b>	To understand distribution in the study of the joint behaviour of two random variables.
<b>CO – 2</b>	To understand the basic concepts of probability and to know the various discrete and continuous distributions.
<b>CO – 3</b>	To solve the problems of large and small samples.
<b>CO – 4</b>	To acquire knowledge about test of hypothesis and associated concepts.
<b>CO – 5</b>	To concepts the analysis of variance, one way and two way classifications, latin square design.

<b>CO NO</b>	<b>Course Outcomes NUMERICAL ANALYSIS – U3CMA15</b>
<b>CO – 1</b>	To solve a system of linear equations.
<b>CO – 2</b>	To apply all branches of engineering.
<b>CO – 3</b>	To know how to find the roots of transcendental equations.
<b>CO – 4</b>	To learn how to interpolate the given set of values.
<b>CO – 5</b>	To learn numerical solution of differential equations.

<b>CO NO</b>	<b>Course Outcomes ANCILLARY MATHEMATICS IV – U3AMA4</b>
<b>CO – 1</b>	To explain the concept of LPP and some classes of LPP.
<b>CO – 2</b>	To obtain the primal and dual of LPP.
<b>CO – 3</b>	To examine the balanced and unbalanced assignment problem.
<b>CO – 4</b>	To determine the feasible solution, IBFS, Optimal solution of transportation problem.
<b>CO – 5</b>	To understand some basic concepts of game theory with saddle point and without saddle point.

<b>CO NO</b>	<b>Course Outcomes INTEGRAL TRANSFORMS – U3SMA1 (SSP)</b>
<b>CO – 1</b>	To make the students familiar with Integral Transforms in fourier transforms and alternative form of fourier complex integral formula and Laplace transform.
<b>CO – 2</b>	To provide the students with the basic knowledge of finite fourier transforms and properties of fourier transforms.
<b>CO – 3</b>	To acquire the knowledge of Laplace transform of Derivatives and integrals and final value theorem.
<b>CO – 4</b>	To analyse the problems of convolution and solution of differential and integral equations.
<b>CO – 5</b>	To understand the students to properties of Z-transforms and Z-transforms of some basic functions.

<b>CO NO</b>	<b>Course Outcomes RESOURCE MANAGEMENT TECHNIQUE – CRMA2 (CERTIFICATE COURSE)</b>
<b>CO – 1</b>	To define nature and feature of OR analyze and solve linear programming models of real life situations.
<b>CO – 2</b>	To provide graphical solutions of LPP with two variables, and illustrate the concept of convex set and extreme points.
<b>CO – 3</b>	To understand the theory of the Simplex method.
<b>CO – 4</b>	To know about the relationships between the primal and dual problems, and to understand sensitivity analysis.

<b>CO – 5</b>	To learn about the applications to transportation, assignment and two person zero sum game problems.
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<b>PO NO</b>	<b>PROGRAM OUTCOMES</b>
<b>PO-1</b>	To promote and apply scientific knowledge for finding sustainable solution to solve the problems in physics
<b>PO-2</b>	Identify, analyze and formulate novel ideas to yield substantial results in the fields of research utilizing the principles of physical science

## **DEPARTMENT OF PHYSICS**

**B.Sc PHYSICS - AUPH**

<b>PO-3</b>	Relate key concepts and scientific principles to various scientific phenomenon and their applications in day to day life.
<b>PO-4</b>	Cultivate unparalleled comprehension of fundamental concepts relevant to basic science leading to an individual progress and career advancement at the national levels.
<b>PO-5</b>	To communicate effectively their views and ideas

<b>PROGRAM SPECIFIC OUTCOMES</b>	
<b>PSO</b>	
<b>PSO-1</b>	To understand the basic concepts of physics
<b>PSO-2</b>	To apply the various concepts to solve the problems in physical science
<b>PSO-3</b>	To learn to design an experiment using appropriate components and cultivate the research attitude by doing project work
<b>PSO-4</b>	To provide knowledge about material properties and its application for developing technology
<b>PSO-5</b>	To acquire knowledge about academic excellence for higher studies and research.



<b>CO NO</b>	<b>Course Outcomes GENERAL PHYSICS – P3CPY1</b>
<b>CO-1</b>	Understand the principles of motion of bodies and sound waves.
<b>CO-2</b>	Acquire knowledge about mechanics, properties of matter and gravitation.
<b>CO-3</b>	Appreciate the applications of conservation laws.
<b>CO-4</b>	Explore the fundamentals of elasticity and torsion effects.
<b>CO-5</b>	Analyze the universal behavior of wave motion and Doppler effect.

<b>CO NO</b>	<b>Course Outcomes THERMAL PHYSICS – P3CPY2</b>
<b>CO-1</b>	Analyze the different types of calorimeter and specific heats.
<b>CO-2</b>	Demonstrate thermal conductivity and concept of specific heat capacity through practical experiments.
<b>CO-3</b>	Illustrate the importance of transport phenomena and Joule –Kelvin effects.
<b>CO-4</b>	Identify the laws of thermodynamics and analyze its application to heat engines.
<b>CO-5</b>	State and apply the concepts of entropy and the use of temperature scales.
<b>CO-6</b>	Apply Maxwell’s thermodynamic equations to comprehend phase transitions.

<b>CO NO</b>	<b>Course Outcomes GEO PHYSICS-T3SPY5 (SSP)</b>
<b>CO-1</b>	To acquire knowledge of weathering and soil erosion.
<b>CO-2</b>	To understand the formation of earth.
<b>CO-3</b>	To know about the concept of big bang theory.
<b>CO-4</b>	To discuss about the natural disasters like earth quark and volcano.

<b>CO-5</b>	To differentiate the minerals and rocks.
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<b>CO NO</b>	<b>Course Outcomes FUNDAMENTAL PHYSICS-P3APY1</b>
<b>CO-1</b>	To gain the knowledge about the principle of rocket.
<b>CO-2</b>	To understand the basics of properties of matter, young's modulus and rigidity modulus.
<b>CO-3</b>	To evaluate the different shapes of practical relevance of matter.
<b>CO-4</b>	To study the general equation of wave motion in general and TM waves in stretched strings and longitudinal waves.
<b>CO-5</b>	To recall the properties and uses of ultrasonic waves.

<b>CO NO</b>	<b>Course Outcomes OPTICS AND SPECTROSCOPY- Q3CPY3</b>
<b>CO-1</b>	To illustrate the concept of dispersion, aberration in lenses.
<b>CO-2</b>	To realise the concept of interference in optics and to apply in designing optical elements useful in day to day life.
<b>CO-3</b>	To analyze and apply the knowledge of diffraction in the laboratory experiments.
<b>CO-4</b>	To explore the concept of polarization and Nickel prism and to study the laws of optical activity and specific rotation.
<b>CO-5</b>	To demonstrate the laser principles, laser behavior, different types of lasers and its applications.

<b>CO NO</b>	<b>Course Outcourse ELECTROMAGNETISM- Q3CPY4</b>
<b>CO-1</b>	To understand the concept of BiotSavart Law, Lorentz force, torque, moving coil ballistic galvanometer and absolute capacity of capacitor
<b>CO-2</b>	To recall the Faraday's law, Len's law and Rayleigh's method
<b>CO-3</b>	To gain the knowledge properties of dia, para and ferro magnetic materials.

<b>CO-4</b>	To understand theory and experimental to find temperature coefficient and specific resistance.
<b>CO-5</b>	To learn the LCR series and parallel circuits concepts.

<b>CO NO</b>	<b>Course Outcomes ALLIED PAPER II HEAT AND THERMODYNAMICS-Q3APY2</b>
<b>CO-1</b>	To demonstrate thermal conductivity and concept of specific heat capacity.
<b>CO-2</b>	To understand the concept of thermodynamics and their laws.
<b>CO-3</b>	To understand the physical phenomena associated with convection Newton's law of cooling.
<b>CO-4</b>	To study the Stefan's Boltzmann law of radiation and emissivity relation.
<b>CO-5</b>	To describe the concept of entropy calculate heat and other important thermodynamics properties for ideal gas.

<b>CO NO</b>	<b>Course Outcomes PRACTICAL –I – Q3CPYL1</b>
<b>CO-1</b>	To demonstrate the use of potentiometer for the calibration of electrical meters.
<b>CO-2</b>	To apply the concepts of moduli of elasticity in a series of experiments
<b>CO-3</b>	To illustrate the underlying concepts of fluid dynamics and mechanics of rigid bodies and compare the results to the standard values.
<b>CO-4</b>	To demonstrate the laws of vibration through various experimental procedure.
<b>CO-5</b>	To apply the phenomenon of dispersion and the concept of refractive index with the use of suitable optical setup.

<b>CO NO</b>	<b>Course Outcomes ALLIED PRACTICAL I –Q3APYL1</b>
<b>CO-1</b>	To perform experiments on any material to identify the strength the given objects.
<b>CO-2</b>	To deal with liquids Newton's law of cooling.
<b>CO-3</b>	To calculate the value of g in compound pendulum.
<b>CO-4</b>	To design the simple circuits and deal with potentiometer voltmeter, ammeter.

<b>CO-5</b>	To perform the experiments on meldon's string to calculate the values of different modes.
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<b>CO NO</b>	<b>Course Outcomes ENERGY PHYSICS –Q3SPY2 (SSP)</b>
<b>CO-1</b>	To acquire knowledge on various energy sources.
<b>CO-2</b>	To understand the concept of solar energy.
<b>CO-3</b>	To study the photovoltaic generation basis and their merits and demerits of solar energy.
<b>CO-4</b>	To demonstrate industrial transportation and agricultural sectors.
<b>CO-5</b>	To learn the energy storage for the developing countries.

<b>CO NO</b>	<b>Course Outcomes ATOMIC PHYSICS AND RELATIVITY-R3CPY5</b>
<b>CO-1</b>	To discuss the concept of relativity and behavior of objects in space and time
<b>CO-2</b>	To understand the concept of electrical conductivity and thermal conductivity
<b>CO-3</b>	To analyze the structure of atoms and coupling scheme
<b>CO-4</b>	To utilize the application of vector atom model.
<b>CO-5</b>	To evaluate the atomic behavior in external applied electric and magnetic field
<b>CO-6</b>	To know about the concepts of X-ray production and the experiments to find the X-ray spectra.

<b>CO NO</b>	<b>Course Outcomes ELECTRICITY AND BASIC ELECTRONICS-R3APY3</b>
<b>CO-1</b>	To understand the basic concepts of electrostatics to electric field.
<b>CO-2</b>	To understand electric and magnetic fields and apply the principles of coulomb's law and Gauss's law to electric fields in various coordinate systems.
<b>CO-3</b>	To compare the LCR series and parallel circuits.

<b>CO-4</b>	To recall the types of diodes and determine the characteristics of op-amp.
<b>CO-5</b>	To apply the Boolean algebra to logic circuits

<b>CO NO</b>	<b>Course Outcomes BIO PHYSICS- R3SPY3 (SSP)</b>
<b>CO-1</b>	To study the structure and function of macro molecules and their types.
<b>CO-2</b>	To understand the principles of different microscopes.
<b>CO-3</b>	To acquire the knowledge on techniques of Raman-Ray diffraction, NMR, ESR spectroscopy.
<b>CO-4</b>	To recall the principles of dialysis and their types.
<b>CO-5</b>	To demonstrate the hydrogen ion concentration and Ph scale.

<b>CO NO</b>	<b>Course Outcomes PHYSICS OF SPORTS-R4NPY1 (NME)</b>
<b>CO-1</b>	To analyze the energy for internal body process and their growth.
<b>CO-2</b>	To explain the force and their some examples
<b>CO-3</b>	To demonstrate the conservation of laws (i.e) momentum and elasticity.
<b>CO-4</b>	To state and apply the concepts of Newton's law of impact
<b>CO-5</b>	Discuss the angular displacement, angular velocity, acceleration, angular momentum.
<b>CO-6</b>	Illustrate the centripetal and centrifugal force
<b>CO-7</b>	Acquire the knowledge in applications of projectile motion.

<b>CO NO</b>	<b>Course Outcomes NUCLEAR PHYSICS-S3CPY6</b>
<b>CO-1</b>	Analyze the structure of nucleus from various models.
<b>CO-2</b>	Learn about the detectors of nuclear radiation.

<b>CO-3</b>	Assess interaction of various types of radiation with matter evaluate their occurrence in their daily life
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<b>CO NO</b>	<b>Course Outcomes MODERN PHYSICS AND OPTICS-R3APY4</b>
<b>CO-1</b>	Understand the laws of photo electricity and Einstein's equation in quantum theory.
<b>CO-2</b>	Analyze the postulates of special theory of relativity and mass-energy relatin.
<b>CO-3</b>	Demonstrate the concepts of geometrical optics.
<b>CO-4</b>	Acquire knowledge about interference and diffraction.
<b>CO-5</b>	Appreciate the fundamentals of spectroscopy.
<b>CO-4</b>	Understand the concept of nuclear fission and fusion.
<b>CO-5</b>	Acquire knowledge of universe and the elementary particles.

<b>CO NO</b>	<b>Course Outcomes MAJOR PRACTICAL II- S3CPYL2</b>
<b>CO-1</b>	Analyze the effects of refractive index of a medium using optical instruments.
<b>CO-2</b>	Predict the curvature of a transparent medium.
<b>CO-3</b>	Measure the thickness of thin material using optical means.
<b>CO-4</b>	Determine the wavelength of mercury spectrum.
<b>CO-5</b>	Analyze frequency response of LCR circuits.
<b>CO-6</b>	Understand the characteristics and applications of operational amplifier.
<b>CO-7</b>	Construct regulated power supply using IC
<b>CO-8</b>	Verify the truth tables of basic logic gates and universal gates.
<b>CO-9</b>	Design circuits using universal gates such as NAND and NOR.

<b>CO NO</b>	<b>Course Outcomes ALLIED PRACTICAL II -S3APYL2</b>
<b>CO-1</b>	Analyze the effects of refractive index of medium using optical instruments.
<b>CO-2</b>	Predict the curvature of a transparent medium.

<b>CO-3</b>	Measure the thickness of thin material using optical means.
<b>CO-4</b>	Determine the wavelength of mercury spectrum.
<b>CO-5</b>	Analyze frequency response of LCR circuits.
<b>CO-6</b>	Understand the characteristics and applications of operational amplifier.
<b>CO-7</b>	Construct regulated power supply using IC.
<b>CO-8</b>	Verify the truth tables of basic logic gates and universal gates.
<b>CO-9</b>	Design circuits using universal gates such as NAND and NOR.

<b>CO NO</b>	<b>Course Outcomes PLASMA PHYSICS- S3SPY4 (SSP)</b>
<b>CO-1</b>	Understand the basic concepts of plasma.
<b>CO-2</b>	Learn about the space plasma.
<b>CO-3</b>	Know the motion of charged particle in magnetic and electric field.
<b>CO-4</b>	Evaluate the properties of plasma in a magnetic field.
<b>CO-5</b>	Analyze the waves in plasma.

<b>CO NO</b>	<b>Course Outcomes HOME APPLIANCES-S4NPY2 ( NME )</b>
<b>CO-1</b>	Demonstrate the parts of computer.
<b>CO-2</b>	Illustrate the working of computer keyboard and mouse.
<b>CO-3</b>	Analyze the types of computers (ie) super, neuro, pocket computers.
<b>CO-4</b>	Explain the working of telephone and electronic mail.
<b>CO-5</b>	Discuss the digital recording, laser and holography.
<b>CO-6</b>	Demonstrate the micro appliances that is radio wave, refrigerator, coffee maker, hair dryer, microwave oven and lamps.

<b>CO NO</b>	<b>Course Outcomes ADVANCED MECHANICS-T3CPY7</b>
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<b>CO-1</b>	Understand the motion of a mechanical system using Lagrange-Hamiltonian formalism.
<b>CO-2</b>	Recall the wave mechanical atom model.
<b>CO-3</b>	Analyze the basic postulates of wave mechanics.
<b>CO-4</b>	Discuss the concepts of microstate and macro state of a system.
<b>CO-5</b>	Compare the Maxwell-Boltzmann, Bose-Einstein and Fermi-Dirac distributions.

<b>CO NO</b>	<b>Course Outcomes ANALOG ELECTRONICS-T3CPY9</b>
<b>CO-1</b>	To understanding the basic of semiconductors and its characteristics.
<b>CO-2</b>	To learn the concepts of transistor symbols, action and transistor Connections.
<b>CO-3</b>	To study the single stage transistor amplifiers and DC AC equivalent circuits\
<b>CO-4</b>	To gain the knowledge of multistage transistor amplifier and importance of coupling.
<b>CO-5</b>	To determine the principles feed backs in amplifiers and study the different types oscillators.

<b>CO NO</b>	<b>Course Outcomes PROGRAMMING IN C-T3EPY1</b>
<b>CO-1</b>	Define the fundamentals of “C” program.
<b>CO-2</b>	Categorize the operators and expressions.
<b>CO-3</b>	Demonstrate the practical concepts of functions and statements.
<b>CO-4</b>	Explore the user defined function and arrays.
<b>CO-5</b>	Acquire the knowledge of C programming and their functions and practical programmes.
<b>CO-6</b>	Discuss the applications and their uses of C programmes.

<b>CO NO</b>	<b>Course Outcomes NANO PHYSICS-T3EPY2</b>
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<b>CO-1</b>	Analyze the electron , optical, scanning probe microscopes.
<b>CO-2</b>	Formulate appropriate tools for measurements of relevant physical properties.
<b>CO-3</b>	Discuss and evaluate state of the art characterization methods for Nano materials
<b>CO-4</b>	Acquire the knowledge in applications of nanotechnology in various fields
<b>CO-5</b>	Illustrate the practical purpose of functionalized metal nanoparticles
<b>CO-6</b>	Demonstrate the method of preparation and their characterization.

<b>CO NO</b>	<b>Course Outcomes DIGITAL ELECTRONICS-U3CPY9</b>
<b>CO-1</b>	Understand binary codes and Boolean algebra.
<b>CO-2</b>	Understand the concepts of different logic circuits and its design.
<b>CO-3</b>	Analyse the laws of Boolean algebra and techniques of k-map and its truth table.
<b>CO-4</b>	Demonstrate the various digital electronic circuits like flip flops, shift registers and counters.
<b>CO-5</b>	Understand the structure of various number systems.

<b>CO NO</b>	<b>Course Outcomes CONDENSED MATTER PHYSICS-U3CPY11</b>
<b>CO-1</b>	Understand the basic concepts of crystallography.
<b>CO-2</b>	Analyze the experimental methods in X-rays diffraction.
<b>CO-3</b>	Discuss the concepts of primary and secondary bonds.
<b>CO-4</b>	Acquiring knowledge of crystal imperfection and Band theory of solids.
<b>CO-5</b>	Learn about the types of superconductivity and their applications.

<b>CO NO</b>	<b>Course Outcomes MAJOR PRACTICAL III –U3CPYL3</b>
<b>CO-1</b>	Perform the analysis and design of various bridge circuits.

<b>CO-2</b>	Demonstrate the 8 bit addition and subtraction using 8085 instructions.
<b>CO-3</b>	Explore the phenomena of Hartman's interpolation formula and Cauchy's constant using optical experiments.
<b>CO-4</b>	Apply the concepts of "C" program.
<b>CO-5</b>	Analyze and design the circuits of high resistance by leakage and co-efficient of self induction.
<b>CO-6</b>	Comparison of mutual inductance and high resistance by leakage using B.G.

<b>CO NO</b>	<b>Course Outcomes MAJOR PRACTICAL-IV- U3CPYL4</b>
<b>CO-1</b>	Demonstrate the input and output characteristics of a transistor in common emitter configuration and common base configuration.
<b>CO-2</b>	Study and Design characteristics and application of diodes.
<b>CO-3</b>	Understand the basic concepts of gates using transistor.
<b>CO-4</b>	Design and verify the operations of astable and bistablemultivibrator using transistor.
<b>CO-5</b>	Compute the working of Colpitt's and Hartley oscillator
<b>CO-6</b>	Design and verify the operations of differentiator and integrator circuit using 741 Op-Amp.
<b>CO-7</b>	Determine the working of 555 timers.
<b>CO-8</b>	Design and verify the operations of half adder, full adder and flip flops.

<b>CO NO</b>	<b>Course Outcomes MICROPROCESSOR-U3EPY3</b>
<b>CO-1</b>	Pinpoint the concept of microprocessor and its history and its evolution with integration technology. Outline the classification of memory and computers.
<b>CO-2</b>	Understand and realize the types of input and output devices and differentiate Assembly and High level languages.
<b>CO-3</b>	Describe the general architecture and pin configuration of 8085.
<b>CO-4</b>	Identify the addressing mode of an instruction. Classify the instruction set of 8085

	microprocessor and distinguish the use of different instructions and apply it in assembly language programming.
<b>CO-5</b>	Develop programming skills in assembly language. Realize the programmable interface devices and interfacing of it with 8085 microprocessor.

<b>CO NO</b>	<b>Course Outcomes COMMUNICATION SYSTEM- U3EPY4</b>
<b>CO-1</b>	Understand and identify the fundamental concepts and various components of communication system.
<b>CO-2</b>	Explore the concept of LASER. Analyze and find applications of Holography and fiber optics.
<b>CO-3</b>	Describe the mobile wireless networks.
<b>CO-4</b>	Explain the basics .and every aspects of satellite communication.
<b>CO-5</b>	Use the different application of satellite communication.

<b>CO NO</b>	<b>Course Outcomes ASTRO PHYSICS-U3EPY5</b>
<b>CO-1</b>	Understand the features of objects in the solar system.
<b>CO-2</b>	Study the solar system based upon observational and physical constraints.
<b>CO-3</b>	Detail the cosmic rays, thermal history of universe and features of universe.
<b>CO-4</b>	Gain the knowledge of the rocket motion.
<b>CO-5</b>	Be able to formulate scientific problems in mathematical terms and apply analytical, numerical methods.

<b>CO</b>	<b>Course Outcomes</b>
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<b>NO</b>	<b>PROJECT-U3EPYP</b>
<b>CO-1</b>	Learn the basics concepts of mobile communication and assembling and disassembling of various methods of mobile phone parts.
<b>CO-2</b>	Understand the various components on the PCB and testing of various
<b>CO-3</b>	Detailed study of various faults arising due to concept software
<b>CO-4</b>	To gain understanding of the basic and advanced trouble shooting concepts.
<b>CO-5</b>	By guidance to start and manage our own mobile repair.

### **M.Sc PHYSICS – SPPH**

<b>PSO NO</b>	<b>Program Specific Outcomes</b>
<b>PSO-1</b>	Post graduates will develop the critical analysis and problem solving skills required in the application of principles of physics
<b>PSO-2</b>	Gain the knowledge in depth of fundamental theories in physical science.
<b>PSO-3</b>	Identify the appropriate resources through ICT enabled classrooms
<b>PSO-4</b>	Postgraduates will have strong capability in organizing and presenting the acquired knowledge coherently both in oral and written discourse
<b>PSO-5</b>	Develop communication skills in communicating physics and Postgraduates will successfully complete for current employment opportunities

<b>CO NO</b>	<b>Course Outcomes</b> <b>MATHEMATICAL PHYSICS-I- P6CPY1</b>
<b>CO-1</b>	Learn about gradient, divergence and curl in orthogonal curvilinear and their typical applications in physics.
<b>CO-2</b>	Learn about special type of matrices that are relevant in physics and then learn about tensors.
<b>CO-3</b>	Get introduced to special functions like Gamma function, Beta function, Dirac delta function, Bessel functions and their recurrence relation.

<b>CO-4</b>	Learn different ways of solving second order differential equations and familiarized with singular points and frobenius method.
<b>CO-5</b>	Learn the fundamentals and applications of Fourier series, Fourier and Laplace transforms their inverse transforms etc.

<b>CO NO</b>	<b>Course Outcomes CLASSICAL MECHANICS- P6CPY2</b>
<b>CO-1</b>	Formulate the mechanics of system of particles at the advanced level and the exposure to Lagrangian equation.
<b>CO-2</b>	Explore the shape of the orbit in Kepler's problem from the inverse square law.
<b>CO-3</b>	Describe the significance of Hamiltonian and Canonical transformations.
<b>CO-4</b>	Theory of small oscillations in detail along with basis of free vibrations.
<b>CO-5</b>	The classical background of quantum mechanics and get familiarized with Hamiltonian Jacobi equation.

<b>CO NO</b>	<b>Course Outcomes APPLIED ELECTRONICS – P6CPY8</b>
<b>CO-1</b>	Understand the frequency spectrum of am wave, band techniques.
<b>CO-2</b>	Knowledge the various modulation techniques.
<b>CO-3</b>	Study asynchronous counters , synchronous counter and digital clock
<b>CO-4</b>	Know the basic concepts of logic circuits and K map
<b>CO-5</b>	Understand the D/A and A/D conversions

<b>CO</b>	<b>Course Outcomes</b>
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<b>NO</b>		<b>PROGRAMMING IN C++- P6EPY1</b>	
<b>CO-1</b>	Learn the concepts of data types, operators, statements, declaration of variables and how to write a simple c++programme.		
<b>CO-2</b>	Understanding of different types of control statements and functions		
<b>CO-3</b>	An ability to learn the concepts of Arrays, functions, pointer declarations functions, pointers and Arrays'	pointers and	
<b>CO-4</b>	To gain understanding of the structure, unions and bitwise concepts		
<b>CO-5</b>	Gain conceptual understanding of inheritance and overloading		

<b>CO</b>		<b>Course Outcomes</b>	
<b>NO</b>		<b>NUMERICAL METHODS- P6EPY2</b>	
<b>CO-1</b>	To learn concepts of solution of algebraic and transcendental equation.		
<b>CO-2</b>	To gain understanding of the interpolation formulas		
<b>CO-3</b>	Explain the numerical integration and differentiation		
<b>CO-4</b>	To learn the Simpson's rule, Taylors series, Picard's methods of successive approximation, Euler's method and RungeKutta Method		
<b>CO-5</b>	Discuss the matrix operations, solution of linear systems iterative methods and solve the Eigen value problems		
<b>CO-6</b>	An ability to understand the numerical solution of partial differential equations		

<b>CO</b>		<b>Course Outcomes</b>	
<b>NO</b>		<b>MATHEMATICAL PHYSICS-II-Q6CPY4</b>	
<b>CO-1</b>	Know the method of contour integration to evaluate definite integrals of varying complexity.		
<b>CO-2</b>	Have gained ability to apply group theory to physics problems, which understands of crystallography, particle physics, quantum mechanics and energy bands in solids.		
<b>CO-3</b>	Be able to apply calculus of variations to diverse problems in physics including isoperimetric problems. Another interesting aspect is the use of Lagrangian multiplier in solving physics problems.		
<b>CO-4</b>	To become familiar with the method of Green's function to solve linear differential equations with inhomogeneous term.		
<b>CO-5</b>	To find solutions to integral equations using different methods.		

<b>CO NO</b>	<b>Course Outcomes THERMODYNAMICS AND STATISTICAL MECHANICS-Q6CPY5</b>
<b>CO-1</b>	Realize the importance of thermo dynamical functions and applications of Maxwell's relation.
<b>CO-2</b>	Apply the law of thermodynamics to paramagnetic salt, surface films and chemical potentials.
<b>CO-3</b>	Grasp the basis of ensemble approach in statistical mechanics to a range of situations.
<b>CO-4</b>	Familiarize in depth about statistical distribution and have basic ideas. Bose Einstein and Fermi Dirac statistics and their applications.
<b>CO-5</b>	Demonstrate the Einstein and Debye's theory of specific heat.

<b>CO NO</b>	<b>Course Outcomes ELECTROMAGNETIC THEORY-Q6CPY6</b>
<b>CO-1</b>	Identify the problems by application of poisson's and Laplace's equations.
<b>CO-2</b>	Learn about the Biot-savart law and to use it to calculate the magnetic field
<b>CO-3</b>	Apply the Maxwell equation to solve problems
<b>CO-4</b>	Acquire the knowledge of propagation of electromagnetic waves in different media
<b>CO-5</b>	Analyze the nature of electromagnetic wave propagation in guided medium which are used in microwave applications

<b>CO NO</b>	<b>Course Outcomes MAJOR PRACTICALS-I ELECTRONICS-Q6CPYL1</b>
<b>CO-1</b>	Understand the working of Op-amp as Hartley oscillator, digital to analog convertor, analog to digital convertor and by solving simultaneous equations.
<b>CO-2</b>	Summarize the characteristics of LED, LDR, photodiode and photo transistors.
<b>CO-3</b>	Compare the low pass, high pass and band pass filters.
<b>CO-4</b>	Design and perform transistor based circuits like Schmitt trigger, Hartley oscillator and Wien's bridge oscillator
<b>CO-5</b>	Simplify and summarize the given logical function using Karnaugh map technique.
<b>CO-6</b>	Study astablemultivibrator using IC 555 and use the same as LED flasher.

<b>CO-7</b>	Study the behavior of unijunction transistor as relaxation oscillator
<b>CO-8</b>	Compare the working of multiplexer and demultiplexer.
<b>CO-9</b>	Perform simple circuits using 'digital works' software.

<b>CO NO</b>	<b>Course Outcomes</b>
<b>MAJOR PRACTICALS-II GENERAL EXPERIMENTS- Q6CPYL2</b>	
<b>CO-1</b>	Diagnose the Cauchy's constant of a given prism for different pairs of spectral color using spectrometer.
<b>CO-2</b>	Analyze the hyperbolic elliptical fringes could provide information about Young's modulus and Poisson's ratio.
<b>CO-3</b>	Construct the Maxwell's bridge circuit and measure the self inductance of the coil.
<b>CO-4</b>	Understand the concept of Owens's Bridge usually works on the principle of comparison.
<b>CO-5</b>	Determine the unknown capacitance value in Wien's bridge method.
<b>CO-6</b>	Analyze the refractive index of different liquids using hollow prism.
<b>CO-7</b>	Know to write the numerical integration program in C++ language.
<b>CO-8</b>	Analyze the refractive index of liquid using laser diffraction method.
<b>CO-9</b>	Construct the Anderson's bridge.

<b>CO NO</b>	<b>Course Outcomes</b>
<b>BIO MEDICAL INSTRUMENTATION- Q6SPY3 (SSP)</b>	
<b>CO-1</b>	Study the nature of cells and their structure.
<b>CO-2</b>	Understanding the techniques of medical and bio medical instrumentation.



<b>CO-3</b>	Gain of knowledge of heart-lung machine and kidney machine.
<b>CO-4</b>	Explain the radiation safely instrumentation.
<b>CO-5</b>	Illustrate the advanced laser instrumentation and bio materials.

<b>CO NO</b>	<b>Course Outcomes INSTRUMENTATION-Q6EPY3</b>
<b>CO-1</b>	Knowledge about applications of electronic measurements.
<b>CO-2</b>	Understand the working principles of different electronic instruments like DVM, DFM
<b>CO-3</b>	Learn the working principles of current to voltage converter electronic ammeter
<b>CO-4</b>	Able to know the cathode ray oscilloscope and its applications (LED , LCD).
<b>CO-5</b>	Recall the basics of logic circuits

<b>CO NO</b>	<b>Course Outcomes MEDICAL PHYSICS- Q6EPY4</b>
<b>CO-1</b>	Understand the normal structure and function of the body and its major organ system.
<b>CO-2</b>	Study the radiation and radio activity its properties and units of measure
<b>CO-3</b>	Knowledge the biological effects of radiation and safely rules
<b>CO-4</b>	Study the procedures associated with the clinical track
<b>CO-5</b>	Ability to retrieve, manage and utilize information for solving problems.

<b>CO NO</b>	<b>Course Outcomes SOLID STATE PHYSICS-I- R6CPY7</b>
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<b>CO-1</b>	Explain the periodic arrangements of atoms, concepts of lattice.
<b>CO-2</b>	State and apply the concepts of Bragg's law and Laue equations
<b>CO-3</b>	Discuss the crystal binding and elastic constants
<b>CO-4</b>	Illustrate the vibrations of linear monatomic and diatomic chains.
<b>CO-5</b>	Discuss the covalent crystals, metallic crystals and hydrogen bonds.
<b>CO-6</b>	Demonstrate energy levels in one dimension
<b>CO-7</b>	Acquire the knowledge in semiconductor crystals and Fermi surfaces and metals.

<b>CO NO</b>	<b>Course Outcomes QUANTUM MECHANICS - R6CPY8</b>
<b>CO-1</b>	Identify and understand the kinds of experimental results which are incompatible with classical physics and which required the development of a quantum theory of matter and light.
<b>CO-2</b>	Relate the matrix formalism to use of basis states and solve simple problems in that formalism.
<b>CO-3</b>	Solve the Schrodinger equations obtain wave functions for some basic, physically important types of potential in one dimension
<b>CO-4</b>	Study physical systems like harmonic oscillator by solving Schrodinger's equation and investigate the spherical harmonics.
<b>CO-5</b>	Understand the role of uncertainty in quantum physics, and use the commutation relations of operators to determine whether or not two physical properties can be simultaneously measured.

<b>CO NO</b>	<b>Course Outcomes NUCLEAR PHYSICS- R6CPY9</b>
<b>CO-1</b>	Know the general properties of nucleus.
<b>CO-2</b>	Understand the concept of alpha and beta, helicity and gamma radiation and selection rules.
<b>CO-3</b>	Would be able to apply various aspects of nuclear reactions in view of compound nuclear dynamics.
<b>CO-4</b>	Accounts for fission and fusion process of the reaction.
<b>CO-5</b>	May be to know about nuclear fission reactors.

<b>CO</b>	<b>Course Outcomes</b>
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<b>NO</b>	<b>CRYSTAL GROWTH TECHNIQUES - R6SPY4 (SSP)</b>
<b>CO-1</b>	Acquiring knowledge of classification of software's and application program packages.
<b>CO-2</b>	Understand the advantages and drawbacks of operating system
<b>CO-3</b>	Discuss the concepts of file management and file handing
<b>CO-4</b>	Recall the concepts of Data communication
<b>CO-5</b>	Apply various network layer techniques for Intranet and Extranet.

<b>CO NO</b>	<b>Course Outcomes INTRODUCTION TO MICROCONTROLLER 8051- R6EPY8</b>
<b>CO-1</b>	Describe the architecture of the INTEL 8051 and 8051family.
<b>CO-2</b>	To explain instruction formats, addressing modes, organization of instruction set and data transfer group.
<b>CO-3</b>	To learn logic group, arithmetic group and control transfer group
<b>CO-4</b>	To understanding of the assembly language programme.
<b>CO-5</b>	5 Impact knowledge of different types of external interfaces including key board, single LEDs, Bi-colour LEDs and Seven segment LEDs.

<b>CO NO</b>	<b>Course Outcomes NANO PHYSICS- R6EPY6</b>
<b>CO-1</b>	Understand the concepts of nanomaterials
<b>CO-2</b>	Learn about the formation of energy gap.
<b>CO-3</b>	Compare the chemical and physical approach by synthesis of nanomaterials
<b>CO-4</b>	Gain some basic ideas in characterization techniques
<b>CO-5</b>	Able to apply unique properties of nanomaterials

<b>CO NO</b>	<b>Course Outcomes SOLID STATE PHYSICS-II- S6CPY10</b>
<b>CO-1</b>	Compare the behavior of electrons in gases.
<b>CO-2</b>	Understand the occurrence of superconductivity
<b>CO-3</b>	Acquire the knowledge of diamagnetism, paramagnetism, ferro and antiferro magnetism
<b>CO-4</b>	Analyze the concept of magnetic resonance and point defects
<b>CO-5</b>	Learn about the dislocation

<b>CO NO</b>	<b>Course Outcomes</b> <b>MOLECULAR SPECTROSCOPY- S6CPY11</b>
<b>CO-1</b>	Determine the vibration for a triatomic molecule and identify whether they are infrared active.
<b>CO-2</b>	Determine whether the molecules are Raman active and stokes and antistokes lines in a Raman spectrum of a compound when given the energies of different transitions.
<b>CO-3</b>	Understand the concept of rotation of molecule diatomic and polyatomic molecules, chemical analysis by microwave spectroscopy.
<b>CO-4</b>	Analyzed the fundamentals of electronic spectra of diatomic molecules.
<b>CO-5</b>	Know about the nuclear magnetic resonance spectroscopy.

<b>CO NO</b>	<b>Course Outcomes</b> <b>OPTOELECTRONICS- S6CPY12</b>
<b>CO-1</b>	To explain the concepts of Q-switching and types of resonators.
<b>CO-2</b>	To understand the basic theory of laser action and apply them to classify and explain the fundamentals of LASER and illustrate the application of LASER in various fields.
<b>CO-3</b>	Analyse the classification of optical fibre and various application area.
<b>CO-4</b>	Demonstrate the principle of Holography and its instrumentation.
<b>CO-5</b>	Describe the basic Physics of non-linear optics and demonstrate different NLO phenomena.

<b>CO NO</b>	<b>Course Outcomes</b> <b>MAJOR PRACTICAL-III GENERAL PHYSICS- S6CPYL5</b>
<b>CO-1</b>	Acquire the appropriate data accurately and keep systematic record of laboratory activities.
<b>CO-2</b>	To measure Hall coefficient and carrier density of given semiconductor crystal.
<b>CO-3</b>	Investigate the BH curve of a given ferromagnetic materials on the basis of coercivity.
<b>CO-4</b>	To determine the film thickness and calibration of spectrometer by Edser Butler Method
<b>CO-5</b>	Determine the susceptibility of the given liquid by Gauoy's method and Brewster angle measurements.
<b>CO-6</b>	Determine the thickness of single slit using laser diffraction method.
<b>CO-7</b>	Determine the band gap of using UV-NIR absorption spectra.

<b>CO NO</b>	<b>Course Outcomes MAJOR PRACTICAL-IV PROJECT- S6CPYL4</b>
<b>CO-1</b>	Do a project work on a research problem and submit their findings as a report followed by a presentation in front of external examiner.
<b>CO-2</b>	Chance to work in various research fields as crystal growth, thin films and nano physics
<b>CO-3</b>	Get an exposure about higher studies in research.
<b>CO-4</b>	Learn the instrumentation required to analyse the samples.
<b>CO-5</b>	Analyse the result using software.

<b>CO NO</b>	<b>Course Outcomes INFORMATION TECHNOLOGY- S6EPY7</b>
<b>CO-1</b>	Acquiring knowledge of classification of software's and application program packages.
<b>CO-2</b>	Understand the advantages and drawbacks of operating system
<b>CO-3</b>	Discuss the concepts of file management and file handing
<b>CO-4</b>	Recall the concepts of Data communication
<b>CO-5</b>	Apply various network layer techniques for Intranet and Extranet.

<b>CO NO</b>	<b>Course Outcomes COMPUTER SIMULATION-S6EPY8</b>
<b>CO-1</b>	Understand the fundamentals of operation research application to simulation.
<b>CO-2</b>	Evaluate the different of testing.
<b>CO-3</b>	Discuss the concept of Monte Carlo method.
<b>CO-4</b>	Analyze the simulation design and arrays.
<b>CO-5</b>	Apply the estimation technique.

<b>CO NO</b>	<b>Course Outcomes FIBER OPTIC COMMUNICATION- S6SPY4 (SSP)</b>
<b>CO-1</b>	Understand the principles of optical fibre.
<b>CO-2</b>	Gain knowledge of different mode of propagation.
<b>CO-3</b>	Study the characteristics of deposition methods.
<b>CO-4</b>	Understand the concept of attenuation in optical fibre and their types of loss.
<b>CO-5</b>	Demonstrate the dispersion of optical fibres.

**DEPARTMENT OF CHEMISTRY**  
**B.Sc CHEMISTRY - AUCH**

PO NO	Programme Outcomes
PO – 1	Understand the concept of chemistry to interrelate and interact to the other subject Maths, Physics and Biological science
PO – 2	Demonstrate, solve and an understanding of major concepts, theoretical principles and efficient problem solving skills in the following areas of chemistry (Analytical, Inorganic, Organic, Physical, Green and Nano chemistry, Food chemistry, Medicinal chemistry)
PO – 3	Understand the importance of the elements in the periodic table including their physical and chemical nature and role in the daily life
PO – 4	An ability to gain entry in to the knowledge available opportunities related to chemistry in the government services through public service commission particularly in the field of food safety, health inspector, pharmacist, water analyst, forensic lab and also in professional schools, graduate programs
PO – 5	Ability to develop the skills required in the chemistry careers such as Assayers, Biochemistry technologists, Biochemists, Chemical Engineers, Chemical technician, Chemists, Colorists, Food chemists, Instrumentation chemists, Waste water treatment plant chemists, Perfumers and Water purification chemists

PSO NO	Programme Specific Outcomes
PSO – 1	Have sound knowledge about the fundamentals and applications of chemical and scientific theories through theory and practical.
PSO – 2	Develop analytical skills and problem solving skills requiring application of chemical principles.
PSO – 3	To learn the structure – activity relationship, Identify chemical formula, functional group and solve numerical problems.
PSO – 4	To understand the good laboratory practices and safety and develop research oriented skills. To make aware to handle the sophisticated instruments / equipment's.
PSO – 5	To get enrichment of knowledge to become familiar with the different branches of chemistry like analytical, organic, inorganic, Physical, polymer, environmental and biochemistry



<b>CO NO</b>	<b>Course Outcomes GENERAL CHEMISTRY-I – P3ACY1</b>
<b>CO – 1</b>	To understand the fundamental concepts of organic reactions such as addition, elimination substitution and polymerization reactions.
<b>CO – 2</b>	To describe the isomerism of organic compounds. This is helpful to identify the nature of biomolecules in future.
<b>CO – 3</b>	To know the various methodologies involved in the metallurgical process and refining of metals.
<b>CO – 4</b>	To discuss the importance of radioactivity, comparison, detection and measurement.
<b>CO – 5</b>	To solve the problems in oxidation numbers of various metals using electronic concept.

<b>CO NO</b>	<b>Course Outcomes BASIC PRINCIPLES OF INORGANIC AND ORGANIC CHEMISTRY – P3CCY4</b>
<b>CO – 1</b>	To understand the salient features of modern periodic table, classification of elements, periodicity properties and nature of bonding involved in the formation of molecules.
<b>CO – 2</b>	To describe the theories of hybridization and formation of molecule, involved in various theoretical approach. To find the shape of the molecule and nature of bonding between them.
<b>CO – 3</b>	To develop the basic knowledge about laboratory hygiene and safety. Identification of cations and anions were found out by spot test and learn the principles of semi micro qualitative analysis.
<b>CO – 4</b>	To learn the fundamentals of organic Chemistry like characteristics of organic and inorganic compounds, Nomenclature of organic compounds, detection and estimation of elements like, C, H, N and halogens. In addition to that, to solve the molecular and structural formula using empirical relationship.
<b>CO – 5</b>	To recognize and understand the fundamental aspects of reaction mechanism.

<b>CO NO</b>	<b>Course Outcomes GENERAL CHEMISTRY-I – Q3CCY4</b>
<b>CO – 1</b>	To learn the basic concepts of acids and bases, importance of HSAB principle. Understand the importance of solvents and its classifications.
<b>CO – 2</b>	To identify the types of solid, symmetry in crystals, unit cell and defects in metals.
<b>CO – 3</b>	To understand the nature of radioactivity and learn about nuclear fission and fusion reaction and its application.
<b>CO – 4</b>	To discuss and describe the geometrical isomerism and optical isomerism of organic compounds.
<b>CO – 5</b>	To get detail knowledge about various steps involved in metallurgical process, concentration of ore, reduction and refining process and the preparation and uses of vanadium pentoxide,

	ammonium molybdate, chloroplatinic acid and uranium hexafluoride.
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<b>CO NO</b>	<b>Course Outcomes MAJOR PRACTICAL – SEMI MICRO QUALITATIVE ANALYSIS– Q3CCYL2</b>
<b>CO – 1</b>	To understand the basic concepts of Qualitative analysis
<b>CO – 2</b>	To identify the interfere and non-interfere anions (acid radical). How to eliminate the interfere anions
<b>CO – 3</b>	To analyse a mixture containing two cations (basic radicals) and group separation
<b>CO – 4</b>	To study the basic procedure of identifying cations and anions
<b>CO – 5</b>	To identify the cations and anions by the spot test and known the reported method.

<b>CO NO</b>	<b>Course Outcomes GENERAL AND THEORETICAL CHEMISTRY – Q3ACY2</b>
<b>CO – 1</b>	To understand the concepts of an atom, orbital and shape of the orbitals. Write the electronic configuration of all elements in periodic table.
<b>CO – 2</b>	To discuss about periodic properties of modern periodic table and explore the structural properties of an atom and ionic.
<b>CO – 3</b>	To recognize the nature of colloids and its importance.
<b>CO – 4</b>	To get the knowledge about the concept of polymers, classification, properties and applications.
<b>CO – 5</b>	To learn the important concepts of Anesthetics, analgesics and antipyretics

<b>CO NO</b>	<b>Course Outcomes ANCILLARY PRACTICAL – QUALITATIVE ANALYSIS– Q3ACYL1</b>
<b>CO – 1</b>	To understand the basic concepts of Qualitative analysis
<b>CO – 2</b>	To identify the interfere and non-interfere anions (acid radical). How to eliminate the interfere anions
<b>CO – 3</b>	To analyse a salt containing simple cations (basic radicals) and group separation
<b>CO – 4</b>	To study the basic procedure of identifying salt containing cations and anions

<b>CO – 5</b>	To identify the cations and anions by the spot test and known the reported method.
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<b>CO NO</b>	<b>Course Outcomes GENERAL CHEMISTRY-III – R3ACY3</b>
<b>CO – 1</b>	To discuss the structure and characterize the carbohydrates and understand the basic unit of biological molecules.
<b>CO – 2</b>	To learn the origin of fossil fuel, refining process and its flammable properties. In addition to that various petrochemical industries.
<b>CO – 3</b>	To know the basic concepts and types of volumetric analysis
<b>CO – 4</b>	To describe the surface phenomenon of reactions and understand the nature of the adsorbent, adsorbate and its applications.
<b>CO – 5</b>	To learn the rate of reaction, order and molecularity. Derivations of rate constant, law of mass action and Le-Chatelier principles.

<b>CO NO</b>	<b>Course Outcomes INORGANIC AND ORGANIC CHEMISTRY– R3CCY6</b>
<b>CO – 1</b>	To explain about hydrocarbons and its classifications. A brief mechanistic pathway of addition reactions of alkenes and alkynes. Aromaticity, homonuclear and polynuclear hydrocarbons.
<b>CO – 2</b>	To describe the preparation and properties of halogen compounds of aliphatic and aromatic. Add on enrich of knowledge about preparation and reactions of dihalogen and side chain halogen compounds.
<b>CO – 3</b>	To discuss the preparation, properties and reactions of aliphatic and aromatic hydroxyl compounds.
<b>CO – 4</b>	To acquire knowledge about analytical methods of volumetric and gravimetric analysis. Strengthen the primary and secondary standards, precipitation and precipitants.
<b>CO – 5</b>	To become a chemist or researcher or higher studies, this helpful to know the theoretical principles of instrumental methods such as TGA-DTA, colorimetric analysis.

<b>CO NO</b>	<b>Course Outcomes DAIRY SCIENCE – R4NCY1 (NME)</b>
<b>CO – 1</b>	To acquire knowledge of Composition, properties and detection of adulteration in milk.
<b>CO – 2</b>	To understand the methods of Milk processing
<b>CO – 3</b>	To aware the methods of milk powder processing
<b>CO – 4</b>	To prepare the milk products of Butter and Cheese
<b>CO – 5</b>	To know the dairy products of Ghee and Ice-Cream, To visit to a Dairy unit/farm and learn the basic methods.

<b>CO NO</b>	<b>Course Outcomes INDUSTRIAL CHEMISTRY – R3SCY1 (SSP)</b>
<b>CO – 1</b>	To gain a knowledge about raw materials of matches, classification of explosives and extraction and purification of cane sugar.
<b>CO – 2</b>	To understand the composition and raw materials of cement, glass and ceramics.
<b>CO – 3</b>	To learn the agricultural importance of fertilizer, insecticide and pesticides.
<b>CO – 4</b>	To discuss the natural and synthetic polymers and its importance. Potential applications of plastics.
<b>CO – 5</b>	To know the manufacturing process of paper and importance of electroplating.

<b>CO NO</b>	<b>Course Outcomes ORGANIC AND PHYSICAL CHEMISTRY– S3CCY7</b>
<b>CO – 1</b>	To understand the important preparation and properties of aromatic aldehydes and ketones. Discuss the mechanism of Cannisaro, Cleisen, Perkin, Knoevenegal and Benzoin condensation.
<b>CO – 2</b>	To describe the classification of carboxylic acids, preparative methods aliphatic and aromatic mono and dicarboxylic acids with reactions.
<b>CO – 3</b>	To know the principles of equilibrium, relationship of $K_p$ and $K_c$ , Applying of Le-Chatelier-Braun principle, synthesis of ammonia (Haber) and sulphuric acid (Contact) and postulates of Nernst-Law.
<b>CO – 4</b>	To derive and discuss the rate and order of reaction. To look on this sight to known the first, second and zero order reactions. Half-life period, Arrhenius equation and transition state theory.

<b>CO – 5</b>	To enrich the reactions in presence of catalyst and its types. Acquire knowledge the reactions involved in surface phenomenon of adsorption and its applications.
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<b>CO NO</b>	<b>Course Outcomes VOLUMETRIC ANALYSIS – S3CCYL4</b>
<b>CO – 1</b>	To estimate the amount of substance present in the whole of the given solution using acidimetry
<b>CO – 2</b>	To find the amount of substance present in the whole of the given solution using alkalimetry
<b>CO – 3</b>	To calculate the amount of substance present in the whole of the given solution using permanganometric method
<b>CO – 4</b>	To estimate the amount of substance present in the whole of the given solution by iodimetric titrations
<b>CO – 5</b>	To gain the knowledge of fundamental concepts of accuracy and error analysis and its importance

<b>CO NO</b>	<b>Course Outcomes GENERAL CHEMISTRY-IV – S3ACY4</b>
<b>CO – 1</b>	To learn the analytical techniques of separation, identification and purification of compounds using chromatographic and colorimetric techniques.
<b>CO – 2</b>	To describe the importance of photochemical reactions and understanding the formation of luminescence, fluorescence, phosphorescence and chemiluminescence.
<b>CO – 3</b>	To understand the importance of biomolecules of proteins, amino acids and peptides.
<b>CO – 4</b>	To discuss types and applications of fertilizer, insecticide, pesticide and fungicides.
<b>CO – 5</b>	To understand the composition and types of cement, glass and ceramics.

<b>CO NO</b>	<b>Course Outcomes ANCILLARY PRACTICAL – VOLUMETRIC ANALYSIS– S3ACYL2</b>
<b>CO – 1</b>	To estimate the amount of substance present in the whole of the given solution using acidimetry
<b>CO – 2</b>	To estimate the amount of substance present in the whole of the given solution using alkalimetry

<b>CO – 3</b>	To find the amount of substance present in the whole of the given solution using permanganometric method
<b>CO – 4</b>	To calculate the amount of substance present in the whole of the given solution by iodimetric titrations
<b>CO – 5</b>	To gain knowledge of the fundamental concepts of accuracy and error analysis and its importance

<b>CO NO</b>	<b>Course Outcomes SMALL SCALE INDUSTRIAL CHEMICALS – S4NCY1 (NME)</b>
<b>CO – 1</b>	To gain the ability to prepare the household chemicals like detergent powder and washing powder.
<b>CO – 2</b>	To know the preparative techniques of Chalk and crayons by hands on training
<b>CO – 3</b>	To learn the synthetic methods of Candles in laboratory
<b>CO – 4</b>	To prepare the Phenols, incense stick and dhuna
<b>CO – 5</b>	To provide the hands on training of Ink (blue, black, red and rubber stamp ink) preparation.

<b>CO NO</b>	<b>Course Outcomes FORENSIC CHEMISTRY – S3SCY2 (SSP)</b>
<b>CO – 1</b>	To create an awareness about the Collection and preservation of evidences
<b>CO – 2</b>	To understand the importance of Examination and identification of drugs, alcohol and poisons
<b>CO – 3</b>	To learn the importance of Finger print and forensic serology
<b>CO – 4</b>	To know the methods of Crime detection
<b>CO – 5</b>	To find out the Forgery and counterfeiting

<b>CO NO</b>	<b>Course Outcomes INORGANIC CHEMISTRY-I – T3ECY2</b>
<b>CO – 1</b>	To understand the fundamental concepts of coordination compounds.
<b>CO – 2</b>	To gain knowledge about formation of metal complexes using VBT, CFT and MOT.
<b>CO – 3</b>	To acquire knowledge of preparative methods and properties of metal carbonyls and Nitrosyls.

<b>CO – 4</b>	To describe the properties and functions of inorganic polymers and bio mimetic metals.
<b>CO – 5</b>	To solve C-programming applications in chemistry.

<b>CO NO</b>	<b>Course Outcomes ORGANIC CHEMISTRY-I – T3CCY11</b>
<b>CO – 1</b>	To acquire knowledge about fundamental concepts of Molecular spectroscopy, it's helpful to futuristic career.
<b>CO – 2</b>	To understand the potential importance of the nitro compounds and its functional importance of biomolecules.
<b>CO – 3</b>	To explore the vitality of amine compounds in the biological systems.
<b>CO – 4</b>	To gain knowledge in the aromatic substitution reactions in the mechanistic pathway.
<b>CO – 5</b>	To understand the concept of conformation and conformational analysis. Potentiality of Bayer's strain theory.

<b>CO NO</b>	<b>Course Outcomes PHYSICAL CHEMISTRY-I – T3CCY12</b>
<b>CO – 1</b>	To understand the conceptual aspects of thermodynamics and its terminology.
<b>CO – 2</b>	To solve and determine the free energy equations, entropy and its application.
<b>CO – 3</b>	To resolve the thermodynamic significance of phase rule to one component and two component system.
<b>CO – 4</b>	To describe the physical and chemical constitution of matters. It will help to find the magnetic and optical properties of matters.
<b>CO – 5</b>	To gain knowledge about colloidal state and its importance of electrical properties.

<b>CO NO</b>	<b>Course Outcomes NON-CONVENTIONAL &amp; RENEWABLE SOURCES OF ENERGY – T3SCY3 (SSP)</b>
<b>CO – 1</b>	To learn the introduction about Renewable and Non-renewable energy sources
<b>CO – 2</b>	To understand the Solar energy and its principle to collecting energy sources
<b>CO – 3</b>	To get information about Applications of solar energy

<b>CO – 4</b>	To learn the Wind energy, advantages and disadvantages; A new generation of tidal power and its principles.
<b>CO – 5</b>	To Understand the knowledge about the Bio-fuels, Geothermal and Bio-mass.

<b>CO NO</b>	<b>Course Outcomes GREEN AND NANO CHEMISTRY– U3CCY12</b>
<b>CO – 1</b>	To know the basic principles and futuristic importance of green chemistry. The concept of atom economy helps to green approach of addition and substitution reactions.
<b>CO – 2</b>	To gain the knowledge of green solvents and its importance. Design the green synthesis of adipic acid, paracetamol, etc.,
<b>CO – 3</b>	To explore the new approach of the synthetic pathway to use as a Microwave assisted reactions
<b>CO – 4</b>	To learn the fundamental concept of nanomaterials and its classifications
<b>CO – 5</b>	To understand the synthetic procedure of nanosized semiconductor and ceramics using sol-gel, laser ablation method.

<b>CO NO</b>	<b>Course Outcomes ORGANIC CHEMISTRY-II – U3CCY13</b>
<b>CO – 1</b>	To acquire knowledge about the detailed mechanism of rearrangement reactions and isomerism of Tautomerism
<b>CO – 2</b>	To study the preparation, properties and synthesis of heterocyclic compounds.
<b>CO – 3</b>	To understand the classification of carbohydrates and its biological importance.
<b>CO – 4</b>	To get an information about natural products of alkaloids and terpenoids and its structural importance.
<b>CO – 5</b>	To study the analytical techniques of the separation and identification of phytochemicals using chromatography and mass spectroscopy.

<b>CO NO</b>	<b>Course Outcomes PHYSICAL CHEMISTRY-II – U3CCY14</b>
<b>CO – 1</b>	To study the basics of photochemical reaction, laws of photo chemistry, photo physical process and photochemical reactions.
<b>CO – 2</b>	To get information of the importance of electrical conductance in an electrolyte using Ostwald's and Debye-Huckel-Onsager equations.
<b>CO – 3</b>	To gain knowledge about electro chemical cell and its types.



<b>CO – 4</b>	To understand the basic principles of molecular spectroscopy. To get the information of a molecule in the KE of rotational and vibrational mode of IR and Raman.
<b>CO – 5</b>	To learn the symmetry and symmetry operation of the molecule and its practical importance.

<b>CO NO</b>	<b>Course Outcomes ORGANIC ANALYSIS AND ESTIMATION – U3CCYL5</b>
<b>CO – 1</b>	To estimate the amount of substance present in the whole of the given solution.
<b>CO – 2</b>	To find out the elements in the organic compound
<b>CO – 3</b>	To investigate the nature of the organic compound
<b>CO – 4</b>	To analyse the functional group of the organic compound and its confirmatory tests.
<b>CO – 5</b>	To analyse the organic compound containing one functional group and confirmation by the preparation of a solid derivative.

<b>CO NO</b>	<b>Course Outcomes MAJOR PRACTICAL-IV – PHYSICAL CHEMISTRY – U3CCYL6</b>
<b>CO – 1</b>	To acquire knowledge about the determination of molecular weights
<b>CO – 2</b>	To find out the eutectic and critical solution temperature by using phase diagram and CST.
<b>CO – 3</b>	To investigate the nature of the thermo chemistry.
<b>CO – 4</b>	To find out the percentage composition of the compound by viscosity method.
<b>CO – 5</b>	To calculate the normality of the given solution by potentiometric and conductometric titration.

<b>CO NO</b>	<b>Course Outcomes MAJOR PRACTICAL-V – GRAVIMETRIC ANALYSIS AND ORGANIC PREPARATION – U3CCYL7</b>
<b>CO – 1</b>	To learn the fundamental concepts of precipitation and recrystallisation
<b>CO – 2</b>	To prepare the organic compounds of Benzanilide, Glucososazone, Benzoic acid, methyl salicylate.

<b>CO – 3</b>	To estimate the amount of lead and barium by gravimetric methods
<b>CO – 4</b>	To estimate the amount of calcium and Nickel by gravimetric methods
<b>CO – 5</b>	To learn the basic concepts and its reaction mechanism of organic compounds.

<b>CO NO</b>	<b>Course Outcomes CHEMISTRY OF BIOMOLECULES– U3SCYL4 (SSP)</b>
<b>CO – 1</b>	To gain knowledge about the Biomolecules and its classifications of Amino acids and proteins
<b>CO – 2</b>	To acquire knowledge about Biomolecules and its classifications of nucleic acids
<b>CO – 3</b>	To understand the Functions and its biological importance of Vitamins and Hormones.
<b>CO – 4</b>	To describe the Biomolecules of enzyme mechanism.
<b>CO – 5</b>	To study the Extraction and refining of oils, analytical methods to determine the oils and fats.

**DEPARTMENT OF ZOOLOGY**

## B.Sc ZOOLOGY- AUZO

PO NO	Programme Outcomes
PO – 1	This Programme offers theoretical as well as practical knowledge about different subject areas.
PO – 2	These subjects are include, Diversity I &II, Microbiology, Immunology etc.
PO – 3	This programme is most beneficial for students who have a strong interest and background in zoology.
PO – 4	It is also advantageous for students who wish to pursue multi & Inter- disciplinary science courses in future.
PO – 5	It develops a self employed culture among the students and it makes the learner a successful Entrepreneur.

PSO NO	Programme Specific Outcomes
PSO – 1	Acquire the knowledge on the diversity of animals in relation to their Phyla and its classification.
PSO – 2	Understand the domain knowledge and its skills to identify the animals and investigate the nature of relationship, connecting link etc.,
PSO – 3	After the completion of these course students have the option to go for higher studies (ie M.Sc.) and then do some research for the welfare of mankind.
PSO – 4	After the higher studies students can join as scientist and even look for professional job oriented courses.
PSO – 5	This programme also offers an opportunities in Indian civil services and Indian forest service etc.,
PSO – 6	Science graduates can go to serve in industries or get an opportunity for establishing their own industrial unit
PSO – 7	Students are able to correctly used biological instrument and proper laboratory techniques

<b>CO NO</b>	<b>Course Outcomes INVERTEBRATA – P3CZY3</b>
<b>CO – 1</b>	Describe the general taxonomic rules of animal classification
<b>CO – 2</b>	Classify the Phylum Protozoa to Echinodermata upto class level
<b>CO – 3</b>	Understand the formation of coral reefs.
<b>CO – 4</b>	Know the pathogenic effect of Helminthes worm
<b>CO – 5</b>	Understand the economic importance of insects
<b>CO – 6</b>	Distinguish the different larval forms of Echinodermate

<b>CO NO</b>	<b>Course Outcomes MAJOR LAB I - LAB IN INVERTEBRATA – P3CZYL2</b>
<b>CO – 1</b>	Observe the digestive, reproductive and Nervous system of cockroach through web resources.
<b>CO – 2</b>	Identify the mouth parts of Cockroach, Honey bee, and Housefly.
<b>CO – 3</b>	Differentiate the appendages of prawn.
<b>CO – 4</b>	Mount the body setae and penial setae of earthworm.
<b>CO – 5</b>	Know the characters of some typical spotters in Invertebrate animal.

<b>CO NO</b>	<b>Course Outcomes CHORDATA – Q3CZY4</b>
<b>CO – 1</b>	Explain the characters of chordates and its affinity
<b>CO – 2</b>	Gain the knowledge about the migration of fishes.
<b>CO – 3</b>	Distinguish the poisonous and non-poisonous snakes.
<b>CO – 4</b>	Inspect the flight adaptation and migration of birds.
<b>CO – 5</b>	Appraise the integumentary derivatives of mammals

<b>CO NO</b>	<b>Course Outcomes MAJOR LAB – II -CHORDATA – Q3CZYL4</b>
<b>CO – 1</b>	Observe the digestive, urinogenital and nervous system of frog through web sources
<b>CO – 2</b>	Mount the placoid scale of shark.
<b>CO – 3</b>	Label the different parts of brain, fore limb and hind limb of frog.
<b>CO – 4</b>	Know the characters of some typical spotters in chordate animal.
<b>CO – 5</b>	Develop skills for observing the animals of chordates

<b>CO NO</b>	<b>Course Outcomes MAJOR CORE – III - CELL AND MOLECULAR BIOLOGY – R3CZY4</b>
<b>CO – 1</b>	Understand the microscope and cytological techniques.
<b>CO – 2</b>	Know the nature of cells and cell organelles and its structure and functions
<b>CO – 3</b>	Acquire the knowledge about ultra structure and functions of nucleus and chromosomes.
<b>CO – 4</b>	Aware the types, causes and treatment of cancer.
<b>CO – 5</b>	Illustrate the mechanism of protein synthesis.

<b>CO NO</b>	<b>Course Outcomes MAJOR LAB – III - LAB IN CELL AND MOLECULAR BIOLOGY – R3CZYL4</b>
<b>CO – 1</b>	Handle the compound microscope.
<b>CO – 2</b>	Understand the centrifugation techniques.
<b>CO – 3</b>	Mount the different mitotic phases in Onion root tip.
<b>CO – 4</b>	Prepare the squamous epithelium from buccal smear.
<b>CO – 5</b>	Know the characters of given cell organelles.

<b>CO NO</b>	<b>Course Outcomes HEALTH AND EDUCATION– R4NZY1 (NME)</b>
<b>CO – 1</b>	Enlighten the basic aspects of good health, hygiene and sanitation.
<b>CO – 2</b>	Create awareness about communicable and non-communicable diseases.
<b>CO – 3</b>	Know the cause, symptoms and prevention of communicable and non-communicable diseases.
<b>CO – 4</b>	Develop healthy practices and Health awareness
<b>CO – 5</b>	Get to know the International Health organization

<b>CO NO</b>	<b>Course Outcomes DEVELOPMENTAL BIOLOGY – S3CZY5</b>
<b>CO – 1</b>	Study the process of spermatogenesis and Oogenesis.
<b>CO – 2</b>	Understand the mechanism of fertilization.
<b>CO – 3</b>	Describe the cleavage and its significance.
<b>CO – 4</b>	Explain the process of organogenesis.
<b>CO – 5</b>	Attain the knowledge of metamorphosis and regeneration.

<b>CO NO</b>	<b>Course Outcomes MAJOR LAB IV - LAB IN DEVELOPMENTAL BIOLOGY – S3CZYL5</b>
<b>CO – 1</b>	Observe the Amphibian metamorphosis.
<b>CO – 2</b>	Demonstrate the regeneration in tadpole tail.
<b>CO – 3</b>	Mount the chick blastoderm.
<b>CO – 4</b>	Observe the life stages of insect
<b>CO – 5</b>	Identify the developmental stages of frog and chick.

<b>CO NO</b>	<b>Course Outcomes APICULTURE – S4NZY3 ( NME)</b>
<b>CO – 1</b>	Understand the introduction of Apirary
<b>CO – 2</b>	Experiment with the behavior of Honeybee.
<b>CO – 3</b>	Make use of the bee hives & bee keeper tools.
<b>CO – 4</b>	Assess the uses of various bee products
<b>CO – 5</b>	Inspect the pest and disease of honey bees

<b>CO NO</b>	<b>Course Outcomes GENETIC AND EVOLUTION – T3CZY9</b>
<b>CO – 1</b>	Study the basic concepts of mendel’s experiment.
<b>CO – 2</b>	Explain the mechanism of crossing over.
<b>CO – 3</b>	Know the alleles of blood group.
<b>CO – 4</b>	Learn the theories and evidence of evolution.
<b>CO – 5</b>	Attain the knowledge about human and horse evolution.

<b>CO NO</b>	<b>Course Outcomes BASIC BIOTECHNOLOGY – T3CZY10</b>
<b>CO – 1</b>	Study the molecular tools applied in biotechnology.
<b>CO – 2</b>	Understanding the rDNA technology.
<b>CO – 3</b>	Learn the techniques applied in biotechnology.
<b>CO – 4</b>	Know the process of cell and tissue culture.
<b>CO – 5</b>	Gain the knowledge about animal cloning.

<b>CO NO</b>	<b>Course Outcomes BIOSTATISTICS, BIOINFORMATICS AND COMPUTER APPLICATION – T3CZY11</b>
<b>CO – 1</b>	Know the methodology of collection of data and its presentation.
<b>CO – 2</b>	Calculate the standard deviation and Chi-square test.
<b>CO – 3</b>	Correlate the biological data
<b>CO – 4</b>	Study the scope and application of bioinformatics.
<b>CO – 5</b>	Understanding the uses of biological data and DNA, RNA, Protein databases.

<b>CO NO</b>	<b>Course Outcomes MAJOR LAB - V - LAB IN GENETICS AND EVOLUTION, BASIC BIOTECHNOLOGY, BIOSTATISTICS AND COMPUTER APPLICATION AND BIOINFORMATICS – T3CZYL5</b>
<b>CO – 1</b>	Verify the mendalian laws through monohybrid and dihybrid ratio.
<b>CO – 2</b>	Interpret the quantitative characters.
<b>CO – 3</b>	Calculate the mean, median mode and standard deviation.
<b>CO – 4</b>	Verify the laws of probability through coin tossing.
<b>CO – 5</b>	Demonstrate the PCR, SDS techniques in biotechnology.
<b>CO – 6</b>	Compute the bioinformatics tools.
<b>CO – 7</b>	Know the aspects of some evolutionary spotters.



<b>CO NO</b>	<b>Course Outcomes BIOCHEMISTRY – U3CZY10</b>
<b>CO – 1</b>	Understanding the principles and techniques of pH, Colorimeter, Chromatography and Electrophoresis.
<b>CO – 2</b>	Know the biological important of carbohydrates and its chemistry.
<b>CO – 3</b>	Get the information about the proteins and amino acids.
<b>CO – 4</b>	Attain the knowledge about lipids.
<b>CO – 5</b>	Know the significance of vitamins, minerals and hormones.

<b>CO NO</b>	<b>Course Outcomes MICROBIOLOGY AND IMMUNOLOGY – U3CZY11</b>
<b>CO – 1</b>	Understanding the knowledge of culture techniques and microbes.
<b>CO – 2</b>	Classify of microbes in different level.
<b>CO – 3</b>	Know the characters of bacteria, fungi, algae and virus.
<b>CO – 4</b>	Learn the pasteurization technology.
<b>CO – 5</b>	Study the basic cells and concepts of immunology. Study the basic cells and concepts of immunology.
<b>CO -6</b>	

<b>CO NO</b>	<b>Course Outcomes ANIMAL PHYSIOLOGY – U3CZY12</b>
<b>CO – 1</b>	Know the importance nutritional requirements.
<b>CO – 2</b>	Understand the mechanism respiration and nutrition.
<b>CO – 3</b>	Attain the knowledge of osmoregulation.
<b>CO – 4</b>	Learn the structure and functions of muscle.
<b>CO – 5</b>	Acquire the knowledge of nervous system.

<b>CO NO</b>	<b>Course Outcomes MAJOR LAB –VI - LAB IN BIOCHEMISTRY, MICROBIOLOGY AND IMMUNOLOGY &amp; ANIMAL PHYSIOLOGY – U3CZYL7</b>
<b>CO – 1</b>	Know the importance nutritional requirements.
<b>CO – 2</b>	Understand the mechanism respiration and nutrition.
<b>CO – 3</b>	Attain the knowledge of osmoregulation.
<b>CO – 4</b>	Learn the structure and functions of muscle.
<b>CO – 5</b>	Acquire the knowledge of nervous system.

<b>CO NO</b>	<b>Course Outcomes CERTIFICATE COURSE- APICULTURE – CRZY1/CRZY2</b>
<b>CO – 1</b>	Obtain the knowledge on bee keeping and its significance.
<b>CO – 2</b>	Gain the knowledge about social organization and division of honey bees.
<b>CO – 3</b>	Understand about modern methods adapted for apiculture.
<b>CO – 4</b>	Learn the products and economic importance of bee keeping
<b>CO – 5</b>	Secure the knowledge about pest, parasites and diseases of honey bees.

<b>CO NO</b>	<b>Course Outcomes ORNAMENTAL FISH CULTURE – T3SZY4 (SSP)</b>
<b>CO – 1</b>	Demonstrate the art of fish keeping and fish tank set up
<b>CO – 2</b>	Identify the characters of some ornamental fishes.
<b>CO – 3</b>	Acquire the knowledge about commercial production of freshwater ornamental fishes.
<b>CO – 4</b>	Examine the live and artificial feed production method and mode of transport.
<b>CO – 5</b>	Get an idea to marketing the aquarium fishes.

<b>CO NO</b>	<b>Course Outcomes FOOD AND NUTRITION – U3SZY5 (SSP)</b>
<b>CO – 1</b>	Attain the knowledge about food and its relation to health.
<b>CO – 2</b>	Learn the food preparation of rice, milk, fish and vegetables.
<b>CO – 3</b>	Acquire the knowledge from sources and function of carbohydrates, protein, lipids and vitamins.
<b>CO – 4</b>	Understand the significance and functions of minerals and water.
<b>CO – 5</b>	Access the knowledge about malnutrition and deficiency diseases.

## M.ScZOOLOGY- SPZO

PO NO	Programme Outcomes
PO – 1	Concede the scientific facts behind natural phenomena
PO – 2	Identify and classify all animals from phylum protozoa to mammals
PO – 3	Understand the concept, process, physiology and molecular basis of animal development
PO – 4	Study the methods of cultivation and economic importance of various species of fishes, prawn and pearl etc.,
PO – 5	Know the economic importance of fishery, poultry and dairy.
PO- 6	Understand the applications of microbes in different field ie. Agriculture, food industry, fermentation process, Biofuel etc.,
PO- 7	Students gain the deep knowledge of theory, practical and dissertation ie. Present work and seminar.
PO- 8	The above teaching module helps to develop skills, scientific temperament and also develop their overall personality.
PO- 9	Innovative programme organize for them to make them innovative to tackle common problem in various tools of life.

PSO NO	Programme Specific Outcomes
PSO – 1	Develop in depth knowledge of theory, practical and dissertation work and seminar which will help them in pursuing research.
PSO – 2	Gain the knowledge about research methodology, effective communication and skills of problem solving methods.
PSO – 3	Explain the structure and functions of organisms at various level
PSO – 4	Analyse the mechanisms involved in life process upto the molecular level.
PSO – 5	Identify research problem and to formulate scientific solution.

<b>CO NO</b>	<b>Course Outcomes BIOCHEMISTRY AND BIOPHYSICS – P6CZY5</b>
<b>CO – 1</b>	Study the concepts of Carbohydrate metabolism.
<b>CO – 2</b>	Explain the catabolism of Aminoacids and metabolism of protein
<b>CO – 3</b>	Gain the knowledge about the lipid molecules
<b>CO – 4</b>	Understand the concepts of pH and Enzyme
<b>CO – 5</b>	Attain the knowledge about Biophysics concepts.

<b>CO NO</b>	<b>Course Outcomes MICROBIOLOGY – P6CZY6</b>
<b>CO – 1</b>	Classify the Bacteria, Virus and Fungi.
<b>CO – 2</b>	Study the microbes related with food
<b>CO – 3</b>	Understand the fermentation technology.
<b>CO – 4</b>	Aware about the communicable and non-communicable disease.
<b>CO – 5</b>	Recommends biopesticide to the farmer.

<b>CO NO</b>	<b>Course Outcomes MAJOR LAB I - LAB IN BIOCHEMISTRY AND BIOPHYSICS – P6CZYL3</b>
<b>CO – 1</b>	Prepare the buffers and adjust the pH
<b>CO – 2</b>	Extract the phosphatase enzyme from animals
<b>CO – 3</b>	Analyze the effect of temperature on phosphatase activity.
<b>CO – 4</b>	Estimate Carbohydrate, protein and lipid by quantitatively.
<b>CO – 5</b>	Demonstrate the chromatography.

CO NO	Course Outcomes MAJOR LAB – II - LAB IN MICROBIOLOGY – P6CZYL4
CO – 1	Prepare the glasswares, media and sterilization technique for microbes culture.
CO – 2	Know the different culture techniques.
CO – 3	Understand the staining technique.
CO – 4	Observe the lactobacillus through hanging drops.
CO – 5	Analyse the standard of milk through methylene blue staining technique.

CO NO	Course outcomes BIOLOGICAL TECHNIQUES –P6EZY1
CO – 1	Know the concepts of microtomy and microscopy.
CO – 2	Explain the principles and applications of colorimeter.
CO – 3	Gain the knowledge of centrifugation.
CO – 4	Describe the working principles of different instrument.
CO – 5	Study the electrophoresis and autoradiography.

CO NO	Course Outcomes SERICULTURE – P6EZY2
CO – 1	Know the cultivation of mulberry plant.
CO – 2	Explain the biology of <i>Bombyx mori</i> .
CO – 3	Describe the rearing facilities of silk worm.
CO – 4	List out pest and diseases of silkworm.
CO – 5	Understand the marketing of cocoon.

<b>CO NO</b>	<b>Course Outcomes GENETICS AND EVOLUTION – Q6CZY7</b>
<b>CO – 1</b>	Understand the mendelian concepts.
<b>CO – 2</b>	Explain the sex determination in man.
<b>CO – 3</b>	Gain the knowledge about the population and applied genetics.
<b>CO – 4</b>	Describe the evidence and theories of evolution.
<b>CO – 5</b>	Get an idea about the speciation and patterns of evolution.

<b>CO NO</b>	<b>Course Outcomes ANIMALPHYSIOLOGY AND DEVELOPMENTAL BIOLOGY – Q6CZY8</b>
<b>CO – 1</b>	Know the mechanism of digestion, circulation and respiration.
<b>CO – 2</b>	Understand the role of muscle and kidney of human.
<b>CO – 3</b>	Illustrate the endocrine and nervous system of man.
<b>CO – 4</b>	Describe the development of eye and air.
<b>CO – 5</b>	Gain the knowledge about IVF, stem cell bank and sperm bank.

<b>CO NO</b>	<b>Course Outcomes MAJOR LAB-III - LAB IN GENETICS AND EVOLUTION – Q6CZYL6</b>
<b>CO – 1</b>	Verify the mendel's law through experiments.
<b>CO – 2</b>	Confirm the hardy-weinberg law.
<b>CO – 3</b>	Analyze the mendelian traits.
<b>CO – 4</b>	Know the variation the finger prints.
<b>CO – 5</b>	Understand the homology and anology.

<b>CO NO</b>	<b>Course Outcomes MAJOR LAB-IV - LAB IN ANIMAL PHYSIOLOGY AND DEVELOPMENTAL BIOLOGY – Q6CZYL7</b>
<b>CO – 1</b>	Observe the effect of temperature on human salivary amylase
<b>CO – 2</b>	Prepare the Haemin crystal
<b>CO – 3</b>	Estimate the blood sugar level
<b>CO – 4</b>	Enumerate the RBC using Haemocytometer
<b>CO – 5</b>	Demonstrate the different count of white blood cells
<b>CO - 6</b>	Record the blood pressure using sphygmomanometer

<b>CO NO</b>	<b>Course Outcomes NATURAL RESOURCES AND MANAGEMENT – Q6EZY5</b>
<b>CO – 1</b>	Discuss the environmental ethics and philosophy.
<b>CO – 2</b>	Analyze the dynamics of natural resources.
<b>CO – 3</b>	Discuss the biodiversity and its conservation.
<b>CO – 4</b>	Find the importance of renewable and non- renewable energy resources.
<b>CO – 5</b>	Assess the levels of environment pollution and its management.

<b>CO NO</b>	<b>Course Outcomes ENTOMOLOGY – Q6EZY6</b>
<b>CO – 1</b>	Classify the insects upto order level
<b>CO – 2</b>	Describe the economic importance of Honey bee, Silkworm and Lac insects.
<b>CO – 3</b>	Explain the nature of damage and control measures of pest.
<b>CO – 4</b>	Know the integrated pest management.
<b>CO – 5</b>	Elaborate the economic importance of insects and biocontrol



<b>CO NO</b>	<b>Course Outcomes</b> <b>BIOSTATISTICS, BIOINFORMATICS AND COMPUTER APPLICATION – R6CZY8</b>
<b>CO – 1</b>	Collect, arrange and tabulate the biological data.
<b>CO – 2</b>	Correlate the data from biological analysis.
<b>CO – 3</b>	Compute the test of significance using t-test, chi square and ANOVA.
<b>CO – 4</b>	Apply various bioinformatics tools for the analysis of biological sequences.
<b>CO – 5</b>	Apply the biological information in computer Field.

<b>CO NO</b>	<b>Course Outcomes</b> <b>MOLECULAR BIOLOGY AND MICROBIAL GENETICS – R6CZY9</b>
<b>CO – 1</b>	Obtain the knowledge on the chemistry of nucleic acid.
<b>CO – 2</b>	Assess the regulatory mechanism of nucleic acid.
<b>CO – 3</b>	Explain the mechanism of protein synthesis.
<b>CO – 4</b>	Get an idea on regulations of gene expression.
<b>CO – 5</b>	Illustrate the structure and life cycle of phages.

<b>CO NO</b>	<b>Course Outcomes</b> <b>MAJOR LAB-V - LAB IN BIOSTATISTICS, BIOINFORMATICS AND COMPUTER APPLICATION – R6CZYL8</b>
<b>CO – 1</b>	Apply the biological data in MS
<b>CO – 2</b>	Calculate the measures of central tendency.
<b>CO – 3</b>	Correlate the biological data.
<b>CO – 4</b>	Verify the probability through coin tossing.
<b>CO – 5</b>	Interpret the date in genomic data base.

<b>CO NO</b>	<b>Course Outcomes MAJOR LAB-VI - LAB IN MOLECULAR BIOLOGY AND MICROBIAL GENETICS – R6CZYL9</b>
<b>CO – 1</b>	Isolate the genomic DNA from bacteria.
<b>CO – 2</b>	Extract the RNA from Yeast cell.
<b>CO – 3</b>	Demonstrate the molecular weight of DNA from agarose gel using silica.
<b>CO – 4</b>	Assess the digestion of vector by restriction endonuclease.
<b>CO – 5</b>	Identify the Griffith, lytic and lysogenic model.

<b>CO NO</b>	<b>Course Outcomes BIOINFORMATICS – R6EZY7</b>
<b>CO – 1</b>	Study the application of bioinformatics.
<b>CO – 2</b>	Assess the biological databases and its significance
<b>CO – 3</b>	Get an idea about the bioinformatics tools.
<b>CO – 4</b>	Sequence and align the DNA and protein sequences
<b>CO – 5</b>	Understand the drug designing and pharmaco informatics.

<b>CO NO</b>	<b>Course Outcomes ENTREPRENEURIAL ZOOLOGY – R6EZY8</b>
<b>CO – 1</b>	Understand the entrepreneurship development.
<b>CO – 2</b>	Know the economic importance of Dairy and poultry sciences.
<b>CO – 3</b>	Culture the mushroom and know the economic importance.
<b>CO – 4</b>	Develop the skills for fish rearing and marketing.
<b>CO – 5</b>	Know the urgent emerge of vermitechnology for environment management..

<b>CO NO</b>	<b>Course Outcomes IMMUNOLOGY – S6CZY9</b>
<b>CO – 1</b>	Explain the structure and functions of lymphoid organs.
<b>CO – 2</b>	Know the importance of immune response and hypersensitivity.
<b>CO – 3</b>	Understand the mechanism of Humoral and Cell mediated immunity.
<b>CO – 4</b>	Study the Autoimmune and Immuno deficiency disease.
<b>CO – 5</b>	Apply theoretical knowledge in Immunotechniques.

<b>CO NO</b>	<b>Course Outcomes BIOTECHNOLOGY – S6CZY10</b>
<b>CO – 1</b>	Understand the recombinant DNA technology.
<b>CO – 2</b>	Learn the techniques used in biotechnology.
<b>CO – 3</b>	Develop the skills on animal and plant tissue culture.
<b>CO – 4</b>	Elaborate the knowledge on fermentation technology.
<b>CO – 5</b>	Apply the technology to solve the environmental problems.

<b>CO NO</b>	<b>Course Outcomes MAJOR LAB-VII - LAB IN IMMUNOLOGY – S6CZYL9</b>
<b>CO – 1</b>	Know the histology of primary and secondary lymphoid organ of man.
<b>CO – 2</b>	Dissect the Bursa fabricus
<b>CO – 3</b>	Isolate spleenocytes in Goat.
<b>CO – 4</b>	Find the ABO blood group
<b>CO – 5</b>	Learn the immunodiffusion techniques.

<b>CO NO</b>	<b>Course Outcomes MAJOR LAB-VIII - LAB IN BIOTECHNOLOGY – S6CZYL10</b>
<b>CO – 1</b>	Isolate the genomic DNA from Prokaryotic and Eukaryotic cells.
<b>CO – 2</b>	Demonstrate the electrophoresis techniques such as SDS-PAGE.
<b>CO – 3</b>	Estimate the nitrogen, Phosphorous, Potassium, Calcium content in vermicompost.
<b>CO – 4</b>	Study the application of Biogas plant.
<b>CO – 5</b>	Isolate the genomic DNA from Prokaryotic and Eukaryotic cells.

<b>CO NO</b>	<b>Course Outcomes RESEARCH PROJECT – S6EZYP</b>
<b>CO – 1</b>	Identify and reflect on where further training or skill acquisition is necessary for self improvement.
<b>CO – 2</b>	Write effective, scientific and technical communication based on the project.
<b>CO – 3</b>	Report research clearly, logically and ethically.
<b>CO – 4</b>	Represent interpretations of research data in scientific and technical communities.
<b>CO – 5</b>	Prepare research proposal to seek financial aid.

## M.Phil ZOOLOGY- SMZO

PO NO	Programme Outcomes
PO – 1	Students think critically towards Zoology curriculum with sound knowledge
PO – 2	It is advantageous for students to operate the equipments for prompt experiment.
PO – 3	This programme helps the students to practice the teaching and learning.
PO – 4	This programme develop the innovative idea in Zoology
PO – 5	Students motivate themselves and develop an interest in planning and implementation of research.

PSO NO	Programme Specific Outcomes
PSO – 1	Understand the general facts and the experimental basis of Zoology
PSO – 2	Solved the problem of critical biological data.
PSO – 3	Students are able to correctly used biological instrument and proper laboratory techniques
PSO – 4	Students are become a creative thinker in society
PSO – 5	Students can identify and reflect on where further training or skill acquisition in necessary for self improvement.
PSO- 6	Students can interpret the research data in scientific and technical communities.

<b>CO NO</b>	<b>Course Outcomes RESEARCH METHODOLOGY – P3CZY3</b>
<b>CO – 1</b>	Understand the principles of various techniques ie. Electrophoresis, Colorimetry and Manometers.
<b>CO – 2</b>	Know the methodology on biomolecules estimation
<b>CO – 3</b>	Attain the knowledge on genetic engineering and related techniques.
<b>CO – 4</b>	Explain the principles and applications of biophysical methods
<b>CO – 5</b>	Learn the immunological techniques
<b>CO- 6</b>	Get an idea about literature collection, Journal and thesis writing
<b>CO- 7</b>	Apply the computer knowledge in interpret the biological data
<b>CO-8</b>	Assess the statistical tools for interpret the biological data

<b>CO NO</b>	<b>Course Outcomes RECENT TRENDS IN ZOOLOGY – P3CZY4</b>
<b>CO – 1</b>	Control the environmental pollution and remedial measures for pollution
<b>CO – 2</b>	Attain the knowledge on Human genome project.
<b>CO – 3</b>	Understand the methods of transgenic animal production and its uses.
<b>CO – 4</b>	Attain the knowledge on vaccine production
<b>CO – 5</b>	Know the economic importance of Aquaculture

<b>CO NO</b>	<b>Course Outcomes ENTOMOLOGY – Q9ZY1</b>
<b>CO – 1</b>	Classify the different species of insect
<b>CO – 2</b>	Understand the economic importance of insect.
<b>CO – 3</b>	Know the different controlling methods of insects
<b>CO – 4</b>	Develop the skills on sericulture and apiculture
<b>CO – 5</b>	Apply the modern trend in pest control

<b>CO NO</b>	<b>Course Outcomes RESEARCH PROJECT – S6EZY</b>
<b>CO – 1</b>	Identify and reflect on where further training or skill acquisition is necessary for self improvement.
<b>CO – 2</b>	Write effective, scientific and technical communication based on the project.
<b>CO – 3</b>	Report research clearly, logically and ethically.
<b>CO – 4</b>	Represent interpretations of research data in scientific and technical communities.
<b>CO – 5</b>	Prepare research proposal to seek financial aid.

## DEPARTMENT OF BOTANY (ALLIED)

CO NO	Course Outcomes
	<b>PLANT DIVERSITY I: - ALGAE, FUNGI, BRYOPHYTES, PLANT PATHOLOGY AND AGRICULTURAL MICROBIOLOGY- R3ABY1</b>
CO – 1	To have a comprehensive knowledge of algae, fungi and bryophytes
CO – 2	To gain the knowledge about the economic importance of algae and fungi
CO – 3	To understand the symptoms, dissemination and control measures of plant diseases
CO – 4	To appreciate the role of microbes in Agriculture
CO – 5	To have a knowledge about nitrogen fixation

CO NO	Course Outcomes
	<b>PLANT DIVERSITY II: - PTERIDOPHYTES, GYMNOSPERMS, ANATOMY AND EMBRYOLOGY-S3ABY3</b>
CO – 1	To gain knowledge about Pteridophytes plants
CO – 2	To understand the embryology of Angiosperms
CO – 3	To understand the interaction and functioning of various cell organelles and cell division
CO – 4	To know about the internal structure of various parts of the plant body
CO – 5	To acquire knowledge about gymnosperm plants

CO NO	Course Outcomes
	<b>TAXONOMY OF ANGIOSPERM, PLANT PHYSIOLOGY, FOREST ECOLOGY-T3ABY5</b>
CO – 1	To know the salient features of different families of angiosperms
CO – 2	To identify the plants with Binominal nomenclature
CO – 3	To understand the concept of metabolic activities of plants
CO – 4	To understand the importance of forest protection and to have a knowledge about the conservation and management of forests
CO – 5	To gain the knowledge of phytohormones.



<b>CO NO</b>	<b>Course Outcomes</b> <b>APPLIED BOTANY - PLANT BREEDING, HORTICULTURE, ECONOMIC BOTANY, AND HERBAL MEDICINE-U3ABY6</b>
<b>CO – 1</b>	Appreciate nutritive value and used of food products with relevant applied
<b>CO – 2</b>	Aspects suited to problems of regional and national needs.
<b>CO – 3</b>	To know about different types of plant yielding drugs
<b>CO – 4</b>	To acquire knowledge about the various methods of propagation of plants.
<b>CO – 5</b>	To have a knowledge of commercial crop improvement methods

<b>CO NO</b>	<b>Course Outcomes</b> <b>ALGAE, FUNGI, BRYOPHYTES, PTERIDOPHYTES, GYMNOSPERMS, CELL BIOLOGY, ANATOMY, EMBRYOLOGY, PLANT PATHOLOGY &amp; AGRICULTURAL MICROBIOLOGY- S3ABYL2</b>
<b>CO – 1</b>	Identification of permanent slides showing cell inclusions and mitosis.
<b>CO – 2</b>	Sectioning, mounting and identifying T.S. of stem and root of Dicot
<b>CO – 3</b>	Sectioning, mounting and identifying T.S. of leaf of Dicot
<b>CO – 4</b>	Identification of Algal mixture. Sectioning, mounting of following Gymnosperms
<b>CO – 5</b>	Spotter identification- <i>Cycas</i>

<b>CO NO</b>	<b>Course Outcomes</b> <b>ANGIOSPERM TAXONOMY, PLANT PHYSIOLOGY, HORTICULTURE PLANT BREEDING, ECONOMIC BOTANY &amp; MEDICINAL BOTANY -U3ABYL3</b>
<b>CO – 1</b>	To dissect and mount the floral parts of the plants of the families prescribed in the syllabus. To describe simple setups in plant physiology.
<b>CO – 2</b>	To describe the plants in technical terms
<b>CO – 3</b>	To assign the given plant to its family giving reasons.
<b>CO – 4</b>	To identify the economic products specified in the syllabus and point out the Botanical name, family, morphology of useful part uses. Propagation method of horticulture – grafting.

**CO – 5** Lay out of kitchen garden.

## **DEPARTMENT OF HISTORY**

### **B.A HISTORY- AUHI**

<b>PO NO</b>	<b>Programme Outcomes</b>
<b>PO – 1</b>	Students will demonstrate in discussion and written work their understanding of different peoples and cultures in past environments and of how those cultures changed over the course of the centuries.
<b>PO – 2</b>	Students will demonstrate in written work and class discussion the ability to recognize and articulate the diversity of human experience including ethnicity race, language, gender, as well as political, economic, social and cultural structures over time and space.
<b>PO – 3</b>	Students will produce their own historical analysis or documents and develop the ability to think critically and historically when discussing the past.
<b>PO – 4</b>	The subjects introduced by the university should create job opportunities and make the students to face the competitive examinations.
<b>PO – 5</b>	History needs to be thought to promote self understanding.

<b>PSO NO</b>	<b>Programme Specific Outcomes</b>
<b>PSO – 1</b>	To appreciate contribution made by ancient people of the past in making present.
<b>PSO – 2</b>	To develop an enlightened attitude towards international understanding.
<b>PSO – 3</b>	Tourism, Environmental studies, fundamentals of computers is provides self employment.
<b>PSO – 4</b>	To attain a sense of tolerance in regards with ethnicity, language, gender as well as the cultural structure.
<b>PSO – 5</b>	To understand the great deeds and mistakes of the past and use it to analyse a given situation.

<b>CO NO</b>	<b>Course Outcomes HISTORY OF INDIA FROM ANCIENT TO 900 A.D – P3CHS1</b>
<b>CO – 1</b>	To make the students understand and appreciate Indus and Vedic civilization.
<b>CO – 2</b>	To make the students aware of the contribution and legacy of Ancient rule of India.
<b>CO – 3</b>	To make the students vast knowledge about Mauryan Administration.
<b>CO – 4</b>	To make the students understand ethical values of Buddhism and Jainisim.
<b>CO – 5</b>	To help students understand Ancient Society and their place, so that they develop a sense of their Cultural heritage.

<b>CO NO</b>	<b>Course Outcomes HISTORY OF TAMIL NADU FROM SANGAM PERIOD TO 850 A.D – P3CHS2</b>
<b>CO – 1</b>	To create an awareness of the legacy of Tamil Nadu during the Sangam period.
<b>CO – 2</b>	To make the students appreciate the greatness of our society art and architecture during the Pallava and Pandian Empire.
<b>CO – 3</b>	To know the Kalabras Rule in Tamil Country.
<b>CO – 4</b>	To know the vast idea about Administration of Pallavas and Pandiyas.
<b>CO – 5</b>	To make the students Bakthi movement and their impact in the Tamil Country.

<b>CO NO</b>	<b>Course Outcomes MODERN GOVERNMENT I – P3CHS1</b>
<b>CO – 1</b>	To create knowledge about various types of Constitutions.
<b>CO – 2</b>	To make the students to know separation of powers.
<b>CO – 3</b>	To create knowledge about various types of party system.
<b>CO – 4</b>	To know the students Salient Features of Constitution.
<b>CO – 5</b>	To make the students Judicial Review.

<b>CO NO</b>	<b>Course Outcomes HISTORY OF INDIA FROM 900 TO 1707 – Q3CHS3</b>
<b>CO – 1</b>	To make the students understand and appreciate of Delhi Sultanate and Mughals.
<b>CO – 2</b>	To make the students aware of the contribution of Muslims to polity Religion Art and Architecture.
<b>CO – 3</b>	To know the students Administration under the Delhi Sultanate.
<b>CO – 4</b>	To know the students Achivements of Vijayanagar Kingdom.
<b>CO – 5</b>	To know the students Administration under the Mughal Empire.

<b>CO NO</b>	<b>Course Outcomes HISTORY OF TAMIL NADU 850 TO 1529 – Q3CHS5</b>
<b>CO – 1</b>	To create an awareness of the Legacy of Tamil Nadu from 850 – 1529.
<b>CO – 2</b>	To make the students appreciate the greatness of Tamil Culture.
<b>CO – 3</b>	To know the Social Economic and religious conditions under the Chola Empire.
<b>CO – 4</b>	To know the Social Economic and Religious under the second Pandya Empire.
<b>CO – 5</b>	To help students understand impact of Vijayanagar rule in Tamil Nadu.

<b>CO NO</b>	<b>Course Outcomes MODERN GOVERNMENT – II – Q3AHS2</b>
<b>CO – 1</b>	To create knowledge about various types of Constitutions.
<b>CO – 2</b>	To make the students to know separation of powers.
<b>CO – 3</b>	To create knowledge about various types of party system.
<b>CO – 4</b>	To know the students Salient Features of Constitution.
<b>CO – 5</b>	To make the students Judicial Review.

<b>CO NO</b>	<b>Course Outcomes HISTORY OF INDIA FROM 1707 TO 1947 A.D – R3CHS5</b>
<b>CO – 1</b>	To create knowledge about the British period in India struggle from freedom and Reform movements.
<b>CO – 2</b>	Learners should be able to vast knowledge about establishment of Europeans in India.
<b>CO – 3</b>	Students to know about the Land Revenue System, Sati and Widow Remarriage Act.
<b>CO – 4</b>	To know about the Socio- Religious movement like Brahmasamaj, Arya Samaj.
<b>CO – 5</b>	To inculcate Patriotism.

<b>CO NO</b>	<b>Course Outcomes TOURISM MANAGEMENT – R3EHS3</b>
<b>CO – 1</b>	To create knowledge about Tourism Management.
<b>CO – 2</b>	To develop Tourism Industry.
<b>CO – 3</b>	To know about the Government’s role in the Tourism Development.
<b>CO – 4</b>	To know functions of Tourist Guide.
<b>CO – 5</b>	To know about Tourist relationship with the International level.

<b>CO NO</b>	<b>Course Outcomes FREEDOM STRUGGLE IN INDIA – R4NHSI</b>
<b>CO – 1</b>	To create knowledge about the struggle for freedom in India in the minds of History students.
<b>CO – 2</b>	To develop national feeling.
<b>CO – 3</b>	To make the students to know about Indian National Congress and its activities.
<b>CO – 4</b>	To promote role of Tamil Nadu in the National movement.
<b>CO – 5</b>	To make the students to know about Gandhiji role in freedom struggle.

<b>CO NO</b>	<b>Course Outcomes HISTORY OF INDIA 1947 TO 2000 A.D – S3CHS6</b>
<b>CO – 1</b>	To create knowledge about the Contemporary History of India.
<b>CO – 2</b>	To know about the Foreign policy of India.
<b>CO – 3</b>	To know Educational Policy and development of Education System.
<b>CO – 4</b>	To know about the information Technology in day today life.
<b>CO – 5</b>	To know new economic policy and rural development programmers.

<b>CO NO</b>	<b>Course Outcomes WOMEN THROUGH THE AGES – S3EHS4</b>
<b>CO – 1</b>	To make the students understand the Status of Women through the ages.
<b>CO – 2</b>	To make the students aware of the legal protection provided for the women.
<b>CO – 3</b>	To highlight the significance of women movements in India.
<b>CO – 4</b>	To reveal the contributions made by women personalities in India.
<b>CO – 5</b>	To make the students role of women in the freedom movement.

<b>CO NO</b>	<b>Course Outcomes CONSTITUTION OF INDIA – S4MHS2</b>
<b>CO – 1</b>	To create knowledge about the Indian constitution in the minds of other than History students.
<b>CO – 2</b>	To develop powers and functions of President'
<b>CO – 3</b>	To make the students to know about Loksabha and Rajyasabha powers.
<b>CO – 4</b>	To know about Judiciary court and High Court.
<b>CO – 5</b>	To know about Central and State relations.

<b>CO NO</b>	<b>Course Outcomes HISTORY OF TAMIL NADU 1529 TO 2000 A.D – T3CHS11</b>
<b>CO – 1</b>	To highlights the Rise of Nayak power their Administration.
<b>CO – 2</b>	To make the students understand the British Rule in Tamil Nadu.
<b>CO – 3</b>	To make the students Role of Tamil Nadu in various rebellions and freedom struggle movement.
<b>CO – 4</b>	To make the students understand the Socio Religious movements in Tamil Nadu.
<b>CO – 5</b>	To describe the administration of Tamil Nadu after 1947.

<b>CO NO</b>	<b>Course Outcomes HISTORY OF SCIENCE AND TECHNOLOGY – T3CHS9</b>
<b>CO – 1</b>	To inculcate the students to about the scientific inventions from 15 <sup>th</sup> century.
<b>CO – 2</b>	To make the students various scientific inventions and discoveries.
<b>CO – 3</b>	To make the students to know about the Science and Technology in the 18 <sup>th</sup> centuries.
<b>CO – 4</b>	To make the students Atomic science development.
<b>CO – 5</b>	To make the students Space Research and Space Mission in development of India.

<b>CO NO</b>	<b>Course Outcomes HISTORY OF EUROPE 1789-1914 A.D – T3CHS12</b>
<b>CO – 1</b>	To create awareness in the minds of the students about the historical facts of Europe during 1789-1914 A.D.
<b>CO – 2</b>	To develop enlightened attitude towards international understanding.
<b>CO – 3</b>	To make the students to know Rise of Napoleon Bonaparte.
<b>CO – 4</b>	To make the students to know unification of Italy.
<b>CO – 5</b>	To make the students to know Greek War of Independence.

<b>CO NO</b>	<b>Course Outcomes</b> <b>INTRODUCTION TO COMPUTER CONCEPTS – T3AHS5</b>
<b>CO – 1</b>	To know about the various facts of fundamentals computer concepts for future career.
<b>CO – 2</b>	To develop the knowledge functioning of Different Operating System.
<b>CO – 3</b>	To know the Different between Hardware and Software Systems.
<b>CO – 4</b>	To know the window Graphic.
<b>CO – 5</b>	To make the students File manager and Program manager.

<b>CO NO</b>	<b>Course Outcomes</b> <b>EPIGRAPHY – T3EHS5</b>
<b>CO – 1</b>	To inculcate the student to Read decipher the inscription as a Primary Source for the study of History.
<b>CO – 2</b>	To make the students to know eminent Epigraphic like George Dubler.J.F.Fleet.
<b>CO – 3</b>	To make the students to know Tamil Brahmi Inscriptions.
<b>CO – 4</b>	To make the students to know memorial and antiquity of South India.
<b>CO – 5</b>	To make the students Origin and growth of Vatteletuthu and Grantha inscriptions.

<b>CO NO</b>	<b>Course Outcomes</b> <b>HISTORY OF EUROPE 1914-1945 A.D – U3CHS15</b>
<b>CO – 1</b>	To create awareness in the minds of the students about the facts of European History.
<b>CO – 2</b>	To develop and enlightened attitude towards international understanding.
<b>CO – 3</b>	To make the students to know the League of Nations, Functions and achievements.
<b>CO – 4</b>	To make the students to know UNO main organs.
<b>CO – 5</b>	To develop international understanding of Foreign Policy.



<b>CO NO</b>	<b>Course Outcomes INTERNATIONAL RELATIONS SINCE 1945 – U3CHS16</b>
<b>CO – 1</b>	To create the knowledge about the origin and establishment of UNO.
<b>CO – 2</b>	To create the knowledge of cold war causes and its effects.
<b>CO – 3</b>	To make the students vast knowledge Regional Organizations.
<b>CO – 4</b>	To make the students to know the diplomacy and Gulf war.
<b>CO – 5</b>	To create the knowledge of Foreign Policy of U.S.A and Russia.

<b>CO NO</b>	<b>Course Outcomes ELEMENTS OF HISTORIOGRAPHY - U3CHS13</b>
<b>CO – 1</b>	To create knowledge about the Methodology of writing the thesis.
<b>CO – 2</b>	To make the students to know history is Science of Art.
<b>CO – 3</b>	To make the students to know Eminent Foreign historians like, Abdul Fazi and Nilakata Sastri.
<b>CO – 4</b>	To make the Students to know historical Research and Criticism.
<b>CO – 5</b>	To create knowledge about Foreign Policy of U.S.A, U.K, Russia, China, Pakistan and Srilanka.

<b>CO NO</b>	<b>Course Outcomes HISTORY OF WORLD CIVILIZATION - U3CHS14</b>
<b>CO – 1</b>	To create awareness and understand the various civilizations of the world and it's Origin, development, decay and its legacy to World Culture.
<b>CO – 2</b>	To make the students to know Babylonian Civilization.
<b>CO – 3</b>	To make the students to know Greek Civilization.
<b>CO – 4</b>	To make students to know the Justinian Or Byzantine Civilization.
<b>CO – 5</b>	To make the students to know the Zoroastrianism Confucianism.

<b>CO NO</b>	<b>Course Outcomes M.S.OFFICE, INTERNET, AND COMPUTER APPLICATION IN HISTORY - U3AHS16</b>
<b>CO – 1</b>	To make awareness in the minds of Students about M.S.Office.
<b>CO – 2</b>	To know Internet, M.S. Excel.
<b>CO – 3</b>	To make the students to know M.S.Power point.
<b>CO – 4</b>	To develop the skill teaching of history with computer aided programmes.
<b>CO – 5</b>	To make the students M.S.Office internet concept is provide self employment.

## DEPARTMENT OF COMMERCE (AIDED)

### B.Com (NCA) - AUCC

PO NO	Programme Outcomes
PO – 1	The students will be ready for employment in functional areas like accounting, taxation, banking, insurance and corporate law.
PO – 2	An attitude for working effectively and efficiently in a business environment.
PO – 3	Learners will gain knowledge of various disciplines of commerce, business, accounting, economics, and finance, auditing and marketing.
PO – 4	Self-employment confidences develop.
PO – 5	Understanding legal issue/ law relating to banking and insurance sector.

PSO NO	Programme Specific Outcomes
PSO – 1	Understand the basic concepts of the commerce, management, accounting of & economics.
PSO – 2	Analyze relationship among commerce, trade industry, services, management and administration.
PSO – 3	Perform all accounting activities and can handle type of business very well.
PSO – 4	Understand application of knowledge of commerce in business service sector industry, marketing, finance entrepreneurship development etc.
PSO – 5	Develop communication skills and computer awareness and rules of income tax act.

<b>CO NO</b>	<b>Course Outcomes BUSINESS COMMUNICATION – P1CM4</b>
<b>CO – 1</b>	Develop oral and written business communication skills
<b>CO – 2</b>	The students will be able to understand about trade enquires, & also the concept of collection letter
<b>CO – 3</b>	To write up the Banking insurance & agency correspondence.
<b>CO – 4</b>	To Describe the company secretarial correspondence.
<b>CO – 5</b>	To prepare application letters & business report presentations.

<b>CO NO</b>	<b>Course Outcomes FINANCIAL ACCOUNTING - I – P3CCM4</b>
<b>CO – 1</b>	To enable the students to get an idea vision of Accounting
<b>CO – 2</b>	To ensure the detailed coverage of final accounts
<b>CO – 3</b>	To have an idea of bill of exchange accounting
<b>CO – 4</b>	To apply BRS quantitative skills to help analyses and solve business problems
<b>CO – 5</b>	To understand the basic idea of depreciation accounting

<b>CO NO</b>	<b>Course Outcomes M/S OFFICE– P3CCM6</b>
<b>CO – 1</b>	To impart knowledge regarding concepts of Dos and Windows
<b>CO – 2</b>	To learn how to create the document with the help of features of M/S Word.
<b>CO – 3</b>	To learn how to use the formulas for calculation with the help of functions of M/S Excel
<b>CO – 4</b>	To learn how to design and features of M/S Power point.
<b>CO – 5</b>	To explore the Microsoft office Access and other features.

<b>CO NO</b>	<b>Course Outcomes LAB IN M/S OFFICE– P3CCML4</b>
<b>CO – 1</b>	To create the knowledge regarding framing the application letter with resume and other file creating.
<b>CO – 2</b>	To learn the simple formula for basic calculation M/S Excel.
<b>CO – 3</b>	To use the formulas for salary and tax calculation in M/S Excel
<b>CO – 4</b>	To design the greeting cards and others for presentation in M/S Power point.

<b>CO NO</b>	<b>Course Outcomes BUSINESS ORGANISATION– Q1CM5</b>
<b>CO – 1</b>	To understand the basic concepts of Business.
<b>CO – 2</b>	To Equip the keen knowledge of formation of Business.
<b>CO – 3</b>	To Know about difference between Joint stock company and Partnership Firm.
<b>CO – 4</b>	To Acquire conceptual knowledge of company Management
<b>CO – 5</b>	To learn the Features of Co-operative Enterprise and Public Enterprise.

<b>CO NO</b>	<b>Course Outcomes FINANCIAL ACCOUNTING-II – Q3CCM9</b>
<b>CO – 1</b>	To recollect the basic concept and terms of the Consignment Accounting
<b>CO – 2</b>	To familiarize students with the accounting treatment adopted for joint venture accounts
<b>CO – 3</b>	To understand the basic in preparing single entry system
<b>CO – 4</b>	To apply the knowledge in evaluating for non-profit trading concerns
<b>CO – 5</b>	To understand the basic idea of fire insurance claim

<b>CO NO</b>	<b>Course Outcomes PRINCIPLES OF MANAGEMENT – Q3CCM10</b>
<b>CO – 1</b>	To summaries the basic concepts of Management, Levels of management and its functions
<b>CO – 2</b>	To summaries the basic concepts of Management, Levels of management and its functions
<b>CO – 3</b>	To examine basis of Organizing, Departmentation, Span of control, Delegation of Authority and Decentralization
<b>CO – 4</b>	To evaluate the importance of Staffing, Directing, and motivational theories
<b>CO – 5</b>	To identify the concept of coordination, controlling and techniques of Control

<b>CO NO</b>	<b>Course Outcomes FINANCIAL ACCOUNTING – III – R3CCM15</b>
<b>CO – 1</b>	To enable the students to acquire knowledge in the preparation of regarding accounts.
<b>CO – 2</b>	To enable the students to understand the preparation of hire purchase and instalment purchase system.
<b>CO – 3</b>	To enable the students to understand the maintenance of branch accounts.
<b>CO – 4</b>	To enable the students to understand maintain of departmental accounts.
<b>CO – 5</b>	To enable the students to gain a sound knowledge on Indian accounting standards (Ind. As)

<b>CO NO</b>	<b>Course Outcomes BUSINESS STATISTICS – R3CCM16</b>
<b>CO – 1</b>	To outline the uses of statistics in various business areas and demonstrate data in diagrammatical and graphical representations.
<b>CO – 2</b>	To Evaluate the importance of statistical tools like Averages, dispersion, index nos., Time series, Correlation and Regression.
<b>CO – 3</b>	To compute and interpret the correlation between two variables
<b>CO – 4</b>	To delineate the concept of Time series and Index numbers
<b>CO – 5</b>	To forecast the business trends in the form of report using time series

<b>CO NO</b>	<b>Course Outcomes FUNDAMENTALS OF BUSINESS ENVIRONMENT – R3CCM17</b>
<b>CO – 1</b>	To discuss the introduction to business environment
<b>CO – 2</b>	To examine the effects of political environment, social and cultural environment
<b>CO – 3</b>	To outline the theory of economic environment
<b>CO – 4</b>	To analysis the various organization of IMF, GATT and WTO
<b>CO – 5</b>	To understand the meaning and concept of natural environment

<b>CO NO</b>	<b>Course Outcomes MODERN BANKING – R3CCM18</b>
<b>CO – 1</b>	To enable them to understand better customer relationship
<b>CO – 2</b>	To provide knowledge about deposits and types of customer
<b>CO – 3</b>	To aim to familiarize banking loans and advances
<b>CO – 4</b>	To create awareness about modern banking services like e-banking, m-banking and internet banking
<b>CO – 5</b>	To acquire knowledge on electronic fund transfer, e-money and core banking solutions

<b>CO NO</b>	<b>Course Outcomes</b> <b>PRINCIPLES AND PRACTICE OF INSURANCE – R3ACM5</b>
<b>CO – 1</b>	To understand the basic concepts of Insurance
<b>CO – 2</b>	To Enrich knowledge the life Insurance Policies
<b>CO – 3</b>	To Develop a clear understanding about the Fire insurance
<b>CO – 4</b>	To Enable students to know about basics the concept of Marine Insurance policy
<b>CO – 5</b>	To learn basic need of General insurance

<b>CO NO</b>	<b>Course Outcomes</b> <b>GENERAL KNOWLEDGE - I – (SSP)</b>
<b>CO – 1</b>	To have a depth information about land and National symbols
<b>CO – 2</b>	To ensure the detail coverage of National agriculture
<b>CO – 3</b>	To knowledge about commerce and international trade
<b>CO – 4</b>	To acquire knowledge on finance institution
<b>CO – 5</b>	To enrich the students' knowledge on industry and its reforms and programmes

<b>CO NO</b>	<b>Course Outcomes</b> <b>FUNDAMENTAL OF ENTREPRENEURSHIP– S3CCM18</b>
<b>CO – 1</b>	To classify the concepts of business, legal, cultural and global environments.
<b>CO – 2</b>	To categorize the role of economic and distinguish internal, external, micro and macro business environments.
<b>CO – 3</b>	To identify legal environments and build an environment analysis of business and elaborate TRIPS, TRIMS and GATS in India
<b>CO – 4</b>	To appraise the technological environment of business and the impacts of globalization.
<b>CO – 5</b>	To inspect the role of MNCs for the economy and develop innovative business ideas to face the environmental challenges.



<b>CO NO</b>	<b>Course Outcomes PARTNERSHIP ACCOUNTS – S3CCM17</b>
<b>CO – 1</b>	To enable the student to understand the fundamentals and accounting procedure for partnership accounts.
<b>CO – 2</b>	To enable the student to understand the accounting treatment for administration of partners.
<b>CO – 3</b>	To enable the student to understand the account treatment for retirement of partners.
<b>CO – 4</b>	To enable the student to understand the handle the accounts relating to dissolution of partnership firm.
<b>CO – 5</b>	To enable to students to understand the handle the accounts relating to Piecemeal distribution cash sale to a company and amalgamation of partnership firm.

<b>CO NO</b>	<b>Course Outcomes BUSINESS MATHEMATICS – S3CCM19</b>
<b>CO – 1</b>	To explain the concepts of set theory, draw Venn diagrams to solve practical problems
<b>CO – 2</b>	To clarify the perception of commercial arithmetic using business level
<b>CO – 3</b>	To Experiment with the Mathematical Tools like Ratio, Proportion and Variation
<b>CO – 4</b>	To recognize the axioms of a system of Probability in the business level
<b>CO – 5</b>	To evaluate some business problems via Theoretical Distribution

<b>CO NO</b>	<b>Course Outcomes EXPORT AND IMPORT PROCEDURE AND DOCUMENTATION– S3ACM6</b>
<b>CO – 1</b>	To enable to student to understand the preliminary for exports.
<b>CO – 2</b>	To enable the students to understand the different methods of payments used in the export.
<b>CO – 3</b>	To understand the export procedure and regulatory documents.
<b>CO – 4</b>	To enable to students to understanding the export clearance and quality inspection formalities.
<b>CO – 5</b>	To enable to student understand the preliminary for imports.

<b>CO NO</b>	<b>Course Outcomes MODERN MARKETING – S3ECM3</b>
<b>CO – 1</b>	To acquire an understanding of Fundamental concepts of Marketing.
<b>CO – 2</b>	To Enable the development of marketing strategies.
<b>CO – 3</b>	To Learn the concept on advertising and sales promotion.
<b>CO – 4</b>	To Analyze Marketing of physical channel of distribution.
<b>CO – 5</b>	To understand the Customer Relationship Marketing and Green Marketing.

<b>CO NO</b>	<b>Course Outcomes GENERAL KNOWLEDGE - II– (SSP)</b>
<b>CO – 1</b>	To enable the students to gains sound knowledge on the politics, legislative and its services
<b>CO – 2</b>	To enable the students to acquire knowledge on defence institutions
<b>CO – 3</b>	To enable the students to be familiar with education, educational programme, projects and organisation
<b>CO – 4</b>	To enable the students to be familiar with energy organisation
<b>CO – 5</b>	To enable the students’ knowledge about India and world and its organisations

<b>CO NO</b>	<b>Course Outcomes INCOME TAX – I -T3CCM22</b>
<b>CO – 1</b>	To introduce the basic concept of Income Tax
<b>CO – 2</b>	To acquire knowledge about income from salary
<b>CO – 3</b>	To calculate income from house property
<b>CO – 4</b>	To enlighten knowledge the income from business or profession
<b>CO – 5</b>	To provide knowledge about capital gains and income from other sources

<b>CO NO</b>	<b>Course Outcomes RETAIL MARKETING – T3CCM20</b>
<b>CO – 1</b>	To outline the retail basic concepts and Retailing Scenario.
<b>CO – 2</b>	To apply the Retail Merchandising methods and Supply Chain management in retail industry.
<b>CO – 3</b>	To examine managing retail personnel and Human resources in retailing.
<b>CO – 4</b>	To evaluate the retail marketing strategies, marketing mix and process of personal selling.
<b>CO – 5</b>	To develop skills for Online retailing and the future of retailing.

<b>CO NO</b>	<b>Course Outcomes BUSINESS LAW – T3CCM24</b>
<b>CO – 1</b>	Explain the various provisions of the Indian Contract Act 1872.
<b>CO – 2</b>	It provides through knowledge about the concept of bailment, pledge & Lien.
<b>CO – 3</b>	Define various, legal procedures, under sale of Goods, Act 1930, & Apply the same in business.
<b>CO – 4</b>	Familiarize with Consumer Protection Act, 1986.

<b>CO NO</b>	<b>Course Outcomes COSTING – T3CCM23</b>
<b>CO – 1</b>	To enable the students to get an ideal vision of costing.
<b>CO – 2</b>	To ensure the detailed coverage of material cost control.
<b>CO – 3</b>	To have an idea of labour cost control.
<b>CO – 4</b>	To have a vision of using process costing.
<b>CO – 5</b>	To ensure the students for preparing an operating cost statement.

<b>CO NO</b>	<b>Course Outcomes COMPANY ACCOUNTS – T3ECM5</b>
<b>CO – 1</b>	To understand the accounting procedure for issue of shares and debentures, redemption of preference shares and debentures.
<b>CO – 2</b>	To gain knowledge of divisible profit and its implications in various accounting procedures leading to preparation of final accounts and calculation of pre-incorporation profits, if a company as per Companies Act 2013.
<b>CO – 3</b>	To Understand and Develop the skills of valuation of goodwill and shares
<b>CO – 4</b>	To acquire knowledge about Amalgamation, Merger and Internal Reconstruction.
<b>CO – 5</b>	To Understand and Exposure concerning the liquation procedure of a company

<b>CO NO</b>	<b>Course Outcomes PRINCIPLES OF COMMERCE AND GENERAL COMMERCIAL KNOWLEDGE - I – T3SCM5</b>
<b>CO – 1</b>	To enable the students to understand the commerce
<b>CO – 2</b>	To make the students understand about join stock company
<b>CO – 3</b>	To enable the students to understand the office, office administration
<b>CO – 4</b>	To enable the students to understand the office machines
<b>CO – 5</b>	To understand the trade and foreign trade

<b>CO NO</b>	<b>Course Outcomes INCOME TAX – II – U3CCM21</b>
<b>CO – 1</b>	To enabling the students to have a fair idea on set-off and carry forward of losses
<b>CO – 2</b>	To determine the concept of assessment of individual
<b>CO – 3</b>	To equip the students with thoughts and points on assessment of firms, AOP and companies
<b>CO – 4</b>	To determine the knowledge about income tax authorities
<b>CO – 5</b>	To acquire knowledge about procedure for assessment

<b>CO NO</b>	<b>Course Outcomes HUMAN RESOURCE MANAGEMENT – U3CCM22</b>
<b>CO – 1</b>	To discuss the basic idea of HRM
<b>CO – 2</b>	To evaluate the develop and evaluate the employee orientation training programs
<b>CO – 3</b>	To outline the various components and benefits of motivation
<b>CO – 4</b>	To analysis of trade union and workers effectively participation in management
<b>CO – 5</b>	To understand the human resource components of the organization’s business plan

<b>CO NO</b>	<b>Course Outcomes INDUSTRIAL LAW – U3CCM20</b>
<b>CO – 1</b>	Familiarize with the law relating to Factories Act 1948.
<b>CO – 2</b>	The students should able to illustrate the role of trade union in the Industrial setup.
<b>CO – 3</b>	Students should able to outline the important causes & impact of Industrial disputes.
<b>CO – 4</b>	Identify the various provisions relating to world men compensation Act 1923.
<b>CO – 5</b>	The students will be able to acquire the knowledge of ESI nature act Benefits of Employees.

<b>CO NO</b>	<b>Course Outcomes MANAGEMENT ACCOUNTING – U3CCM17</b>
<b>CO – 1</b>	To know about the practice of management accounting concepts
<b>CO – 2</b>	To have a wide knowledge in practising ratio analysis.
<b>CO – 3</b>	To prepare cash flow analysis.
<b>CO – 4</b>	To get an idea about decision making while learning marginal costing.
<b>CO – 5</b>	To get an idea of practicing standard costing.

### **B.Com(CA) - AUCO**

<b>CO NO</b>	<b>Course Outcomes DESKTOP PUBLISHING – P3CCN1</b>
<b>CO – 1</b>	Identify desktop publishing terminology and concepts
<b>CO – 2</b>	Work with basic features of Word
<b>CO – 3</b>	Use critical thinking skills to design and create spread sheets
<b>CO – 4</b>	Identify the names and functions of the power point interface
<b>CO – 5</b>	Examine database concepts and explore the Microsoft office Access environment

<b>CO NO</b>	<b>Course Outcomes LAB IN DESKTOP PUBLISHING – P3CCML5</b>
<b>CO – 1</b>	The students will be able to perform documentation
<b>CO – 2</b>	The students will be able to perform Accounting operations
<b>CO – 3</b>	The students will be able to perform presentation skills
<b>CO – 4</b>	The students will be able to perform database creation

<b>CO NO</b>	<b>Course Outcomes FUNDAMENTALS OF COMPUTER – P3ACN1</b>
<b>CO – 1</b>	Bridge the fundamental concepts of computers
<b>CO – 2</b>	Familiarize Operating systems, programming language, peripheral devices
<b>CO – 3</b>	Understand Binary, Hexadecimal and Octal number systems and their arithmetic
<b>CO – 4</b>	Understand the basics of digital computer
<b>CO – 5</b>	Analyze various cloud programming models

<b>CO NO</b>	<b>Course Outcomes INTERNET AND E-COMMERCE – Q3CCM8</b>
<b>CO – 1</b>	Analyse the impact of E-Commerce business models.
<b>CO – 2</b>	Describe the infrastructure for E- Commerce.
<b>CO – 3</b>	Discuss legal issues and privacy in e-commerce
<b>CO – 4</b>	Demonstrate an understanding of the foundation and importance of E-Commerce
<b>CO – 5</b>	Describe internet trending relationships including Business to consumer, Business to Business

<b>CO NO</b>	<b>Course Outcomes C PROGRAMMING – Q3ACN4</b>
<b>CO – 1</b>	Outline the concepts of procedure oriented programming
<b>CO – 2</b>	Identify the various control structure.
<b>CO – 3</b>	Classify various functions in C.
<b>CO – 4</b>	Evaluate the file operations
<b>CO – 5</b>	Discuss and solve the commercial problem.

<b>CO NO</b>	<b>Course Outcomes LAB IN C PROGRAMMING– R3ACL4</b>
<b>CO – 1</b>	Read understand and trace the execution of programs written in C language
<b>CO – 2</b>	Write a C code for a given algorithm
<b>CO – 3</b>	Know concepts in problem solving
<b>CO – 4</b>	Introduces the more advanced features of the C language

<b>CO NO</b>	<b>Course Outcomes LAB IN HTML – T3CCML2</b>
<b>CO – 1</b>	Analyze a web page and identify its elements and attributes
<b>CO – 2</b>	Create web pages using XHTML and cascading style sheets
<b>CO – 3</b>	Develop skills in analyzing the usability of a web site
<b>CO – 4</b>	Be able to embed social media content in to web pages

<b>CO NO</b>	<b>Course Outcomes OPERATING SYSTEMS – R3CCN3</b>
<b>CO – 1</b>	Explain the functionalities of Operating system
<b>CO – 2</b>	Experiment the technique of scheduling, paging, and memory allocation
<b>CO – 3</b>	Compare memory management techniques
<b>CO – 4</b>	Elaborate the mechanism of inter process communication

<b>CO NO</b>	<b>Course Outcomes C++ PROGRAMMING – R3ACN3</b>
<b>CO – 1</b>	To understand how C++ improves c with object oriented features
<b>CO – 2</b>	To learn how to write inline functions for efficiency and performances
<b>CO – 3</b>	To learn how to design C++ classes for code reuse
<b>CO – 4</b>	To learn the syntax and semantics of the C++ programming language
<b>CO – 5</b>	To learn how to design and implement generic classes with C++ templates



<b>CO NO</b>	<b>Course Outcomes LAB IN C++ PROGRAMMING – R3CCML4</b>
<b>CO – 1</b>	Find the solution to a problem using object oriented programming concepts
<b>CO – 2</b>	Choose the relevant Oops concept and write programs
<b>CO – 3</b>	Evaluate programs and test data
<b>CO – 4</b>	Build data structure using C++

<b>CO NO</b>	<b>Course Outcomes SOFTWARE ENGINEERING – S3CCN4</b>
<b>CO – 1</b>	Know the concepts of software engineering
<b>CO – 2</b>	Estimate the software costing techniques
<b>CO – 3</b>	Gain knowledge of various software testing methods in software development process.
<b>CO – 4</b>	An ability to communicate effectively with a range of audiences
<b>CO – 5</b>	An ability to acquire and apply new knowledge as needed using appropriate learning strategies

<b>CO NO</b>	<b>Course Outcomes RDBMS – S3ACN4</b>
<b>CO – 1</b>	Define the terminology, features, classifications and characteristics embodied in database systems.
<b>CO – 2</b>	Comprehend the concepts of basic database storage structure and access technique.
<b>CO – 3</b>	Know commercial relational database system by writing SQL using the system
<b>CO – 4</b>	Master the basics of SQL and construct queries using SQL
<b>CO – 5</b>	Master the basics of query evaluation techniques

<b>CO NO</b>	<b>Course Outcomes LAB IN RDBMS – S3ACML2</b>
<b>CO – 1</b>	Learn and apply Structured Query Language(SQL) for database definition and manipulation
<b>CO – 2</b>	Understand various transaction processing concurrency control mechanisms and database protection mechanism
<b>CO – 3</b>	Apply the basic concepts of Database Systems and Applications
<b>CO – 4</b>	Analyze and select storage and recovery techniques of database system

<b>CO NO</b>	<b>Course Outcomes VISUAL BASIC PROGRAMMING – T3CCN5</b>
<b>CO – 1</b>	Explain basic concepts and definitions
<b>CO – 2</b>	Express constants and arithmetic operations
<b>CO – 3</b>	Distinguish variable and data types
<b>CO – 4</b>	Manage and analyze prepared project with programs
<b>CO – 5</b>	Interpret and report obtaining results

<b>CO NO</b>	<b>Course Outcomes COMPUTER NETWORKS – T3CCM17</b>
<b>CO – 1</b>	Explain the use of computer networks and the significance of network security
<b>CO – 2</b>	Identify the functionalities and protocol of various layers in OSI reference model.
<b>CO – 3</b>	Distinguish between connection oriented service and connectionless services
<b>CO – 4</b>	Evaluate the importance routing algorithm, congestion control and domain name system.
<b>CO – 5</b>	Discuss the usage of IP address, electronic mail and the techniques of security.

<b>CO NO</b>	<b>Course Outcomes ACCOUNTING SOFTWARE – U3CCN7</b>
<b>CO – 1</b>	Knowledge about Accounting terms
<b>CO – 2</b>	To learn computerized accounting technique
<b>CO – 3</b>	To understand financial accounting
<b>CO – 4</b>	To learn how to prepare final accounts and cost accounting
<b>CO – 5</b>	Knowledge regarding GST calculation

<b>CO NO</b>	<b>Course Outcomes LAB IN ACCOUNTING SOFTWARE – U3CCNL5</b>
<b>CO – 1</b>	Students learn to work with accounting software
<b>CO – 2</b>	Able to create company in software
<b>CO – 3</b>	Understanding on accounting and inventory vouchers and reports
<b>CO – 4</b>	Students will be able to generate number of reports

## M.Com - APCO

<b>CO NO</b>	<b>Course Outcomes ADVANCED ACCOUNTING– P6CCM14</b>
<b>CO – 1</b>	To understand the concepts of trading, profit and loss account and the balance sheet.
<b>CO – 2</b>	To Examine the concepts of Partnership accounts, construct accounts for admission, retirement / death of partners.
<b>CO – 3</b>	To analyse the various process of preparing accounts for non-trading organisations.
<b>CO – 4</b>	To identify the Approaches to social accounting, inflation Accounting and Human Resource Accounting.
<b>CO – 5</b>	To evaluate the Indian and International Accounting Standards and various Applicability of Accounting Standards.

<b>CO NO</b>	<b>Course Outcomes FINANCIAL SERVICES – P6CCM11</b>
<b>CO – 1</b>	To understand the role and function of the financial system
<b>CO – 2</b>	To examine the developed of money market
<b>CO – 3</b>	To outline the basic idea of SEBI and its role
<b>CO – 4</b>	To recollect the concept about structure of secondary market
<b>CO – 5</b>	To origin and growth of merchant banking and types of mutual fund

<b>CO NO</b>	<b>Course Outcomes INTERNATIONAL BUSINESS – P6CCM12</b>
<b>CO – 1</b>	To have developed an understand the major issue related to international business
<b>CO – 2</b>	To understand the various market entry modes in internationalization
<b>CO – 3</b>	To outline the role of IMF, WTO, UNCTD and World Bank
<b>CO – 4</b>	To recollect the organization’s ability to enter and compete in international business
<b>CO – 5</b>	To have developed skills in foreign direct investment in global business and in modern business practice

<b>CO NO</b>	<b>Course Outcomes ADVANCED BUSINESS STATISTICS – P6CCM15</b>
<b>CO – 1</b>	To apply correlation and regression analysis including, both simple and multiple correlation and regression
<b>CO – 2</b>	To develop an understanding of the theory of Probability, rules of probability & probability distributions
<b>CO – 3</b>	To become aware of the concepts in sampling, sampling distribution and procedure for hypothesis
<b>CO – 4</b>	To appreciate the importance and application of non-parametric tests in hypothesis testing (Chi-square test).
<b>CO – 5</b>	To appreciate the importance and application of non-parametric tests in hypothesis testing (F-test – ANOVA One way & Two way classification model)

<b>CO NO</b>	<b>Course Outcomes HUMAN RESOURCE MANAGEMENT – P6ECM4</b>
<b>CO – 1</b>	To introduce the concept of Human Resource management and Personnel Management, Evolution and Development of HRM.
<b>CO – 2</b>	To gain knowledge on the various aspects of Human Resource Planning i.e. Recruitment and Selection process, Placement and Induction.
<b>CO – 3</b>	To gain insight of in to the various sub system of HR, Training and Development Performance Appraisal, MBO Approach.
<b>CO – 4</b>	To learn the components Wages and Salary Administration and benefit Practices in Organization.
<b>CO – 5</b>	To familiarize with the labour relation and collective bargaining, national commission of labour.

<b>CO NO</b>	<b>Course Outcomes ACCOUNTING FOR BUSINESS DECISIONS – Q6CCM19</b>
<b>CO – 1</b>	To have developed an fundamental concepts of management accounting
<b>CO – 2</b>	To have a wide knowledge in practicing financial statements and ratio analysis
<b>CO – 3</b>	To prepare the cash flow analysis
<b>CO – 4</b>	To get an idea about decision making while learning about marginal costing and standard costing
<b>CO – 5</b>	To have developed skills in budgetary analysis

<b>CO NO</b>	<b>Course Outcomes BUSINESS ENVIRONMENT AND POLICY – Q6CCM18</b>
<b>CO – 1</b>	To classify the concepts of business, legal, cultural and global environments.
<b>CO – 2</b>	To categorize the role of economic and distinguish internal, external, micro and macro business environments.
<b>CO – 3</b>	To identify legal environments and build an environment analysis of business and elaborate TRIPS, TRIMS and GATS in India.
<b>CO – 4</b>	To appraise the technological environment of business and the impacts of globalization.
<b>CO – 5</b>	To inspect the role of MNCs for the economy and develop innovative business ideas to face the environmental challenges.

<b>CO NO</b>	<b>Course Outcomes RESEARCH METHODOLOGY – Q6CCM17</b>
<b>CO – 1</b>	To introduce the concept of research and research methodology.
<b>CO – 2</b>	To enable to students to understand the sampling.
<b>CO – 3</b>	To make students understand about collection of data.
<b>CO – 4</b>	To enable the students to understand the hypothesis.
<b>CO – 5</b>	To enable the students to write the research report.

<b>CO NO</b>	<b>Course Outcomes OPERATIONS RESEARCH – Q6CCM16</b>
<b>CO – 1</b>	Explain the applications & methodology employed in operations research & prepare solution to linear programming problems.
<b>CO – 2</b>	To be able to build and solve Transportation & Assignment problems using appropriate method.
<b>CO – 3</b>	Apply Queuing theory to solve business related problems.
<b>CO – 4</b>	To be able to design & solve simple models of CPM/PERT.
<b>CO – 5</b>	Enables to take best course of action out of several alternative courses for the purpose of achieving objectives by applying game theory.

<b>CO NO</b>	<b>Course Outcomes ORGANISATIONAL BEHAVIOUR – Q6ECM5</b>
CO – 1	To Understanding the Organizational behaviour theory and Approaches.
CO – 2	To aware of the concept in motivation, morale and conflict management.
CO – 3	To explore the group and group dynamics in the Organizational life.
CO – 4	To learn the components about the role of stress management
CO – 5	To comprehend the change management as it functions in the Organizational behaviour.

<b>CO NO</b>	<b>Course Outcomes CORPORATE ACCOUNTING – R6CCM24</b>
CO – 1	To gain knowledge of divisible profit and its implications in various accounting procedures leading to preparation of final accounts and calculation of pre-incorporation profit, if a company as per Companies Act 2013
CO – 2	To Understand and Develop the skills of valuation of goodwill and shares
CO – 3	To acquire knowledge about Amalgamation, Merger and Internal Reconstruction.
CO – 4	To acquire knowledge on Holding Company as per Companies Act - 2013
CO – 5	To Understand and Exposure concerning the liquation procedure of a company

<b>CO NO</b>	<b>Course Outcomes DIRECT TAXES – R6CCM25</b>
CO – 1	To introduce the basic concept of Income Tax and income computation disclosure standards
CO – 2	To calculate the taxable income under different heads
CO – 3	To acquire knowledge about profits and gains from business or profession, Capital gains and other sources
CO – 4	To enabling the students to have a fair idea on set-off and carry forward of losses and assessment of individuals
CO – 5	To provide knowledge about assessment of firms and companies

<b>CO NO</b>	<b>Course Outcomes APPLIED COSTING – R6CCM22</b>
<b>CO – 1</b>	To enable the students to acquire the knowledge of job costing, batch and contract costing.
<b>CO – 2</b>	To provide the detained awareness about service costing.
<b>CO – 3</b>	To ensure the knowledge of using process costing.
<b>CO – 4</b>	To have a complete idea about tenders and quotations.
<b>CO – 5</b>	To familiarize the concepts of cost control, cost reduction and cost audit.

<b>CO NO</b>	<b>Course Outcomes CUSTOMER RELATIONSHIP MANAGEMENT – R6CCM23</b>
<b>CO – 1</b>	To understand the basic concept of Customer Relationship Management.
<b>CO – 2</b>	To know the Customer Relationship Management in an effective way.
<b>CO – 3</b>	To know the participation of Customer Relationship Management Framework.
<b>CO – 4</b>	To Analyze the context of Customer Relationship Management.
<b>CO – 5</b>	To understand technology for Relationship Marketing and Internet Challenges of customer Relationship.

<b>CO NO</b>	<b>Course Outcomes ENTREPRENEURSHIP DEVELOPMENT – R6ECM7</b>
<b>CO – 1</b>	To enable the students to gain a sound knowledge on concept of entrepreneurship development
<b>CO – 2</b>	To enable the students to acquire knowledge on formulate project and prepare project report.
<b>CO – 3</b>	To enable the students to be familiar with the concept of institution support for small entrepreneurs.
<b>CO – 4</b>	To enable thee students to be familiar with the concept of starting a small scale industry.
<b>CO – 5</b>	To enable the students understand the concept of women entrepreneurs.



<b>CO NO</b>	<b>Course Outcomes BUSINESS ORGANISATION AND MANAGEMENT – R6SCM2</b>
<b>CO – 1</b>	To enable the students to understand the commerce, joint stock company, commencement of business
<b>CO – 2</b>	To make the students understand about stock exchange, public corporation, Government company
<b>CO – 3</b>	To enable the students to understand the evolution of management science
<b>CO – 4</b>	To enable the students to understand the secretarial practice
<b>CO – 5</b>	To understand the banking

<b>CO NO</b>	<b>Course Outcomes FINANCIAL MANAGEMENT – S6CCM23</b>
<b>CO – 1</b>	To enable the students about the importance of financial management for a business.
<b>CO – 2</b>	To know about the various function to be considered while planning for investment decisions.
<b>CO – 3</b>	To know about the students regarding the various types of financial decision taken by the organisations.
<b>CO – 4</b>	To enable the students to understand working capital management inventories, receivable management and management of cash.
<b>CO – 5</b>	To understand the applications of certain dividend decisions and policies.

<b>CO NO</b>	<b>Course Outcomes INDIRECT TAXES – S6CCM22</b>
<b>CO – 1</b>	To make the students understand the different features of indirect tax law
<b>CO – 2</b>	To acquire knowledge the GST
<b>CO – 3</b>	To determine the GST input tax credit and GST audit
<b>CO – 4</b>	To enlighten knowledge the procedures and special provision under GST
<b>CO – 5</b>	To understand the Customs Act 1962

<b>CO NO</b>	<b>Course Outcomes SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT– S6CCM24</b>
<b>CO – 1</b>	To enable students to understand various dimensions of managing on investment programme.
<b>CO – 2</b>	To familiarize the students regarding the techniques of analysing securities being applied by fund managers.
<b>CO – 3</b>	Understand, analyse and Various strategies of futures and options in the derivatives markets.
<b>CO – 4</b>	Construct, Analyse, Select and Evaluate Portfolio Management Models
<b>CO – 5</b>	To develop an insight into various issues in portfolio construction, revision and evaluation.

<b>CO NO</b>	<b>Course Outcomes INDIAN BANKING SYSTEM– S6CCM25</b>
<b>CO – 1</b>	To introduce the concept of banking system in India.
<b>CO – 2</b>	To enable the students to understand the banking regulation Act 1949.
<b>CO – 3</b>	To enable the students to gain a sound knowledge on central banking functions.
<b>CO – 4</b>	To enable the student for understand the various type of banking company and non-banking company concepts.
<b>CO – 5</b>	To enable about the students to gain a knowledge on E-banking system.

<b>CO NO</b>	<b>Course Outcomes RURAL MARKETING – S6ECM9</b>
<b>CO – 1</b>	To Explore the various facets of Rural Marketing.
<b>CO – 2</b>	To understand the product Strategy and competitive product strategies Of the Rural Markets.
<b>CO – 3</b>	To know about Rural Marketing pricing strategy, and price policy.
<b>CO – 4</b>	To use of Advertising and sales promotion.
<b>CO – 5</b>	To Analyze the Distribution Strategies.

<b>CO NO</b>	<b>Course Outcomes MARKETING,BUSINESS LAW,STATISTCS AND FUNDAMENTAL OF COMPUTER – (SSP)</b>
<b>CO – 1</b>	To enable the students to understand the marketing concept
<b>CO – 2</b>	To make the students understand about business law
<b>CO – 3</b>	To enable the students to understand the auditing
<b>CO – 4</b>	To enable the students to understand the business statistics
<b>CO – 5</b>	To understand the basic structure of computer ,MS-office

## M.Phil COMMERCE - SMCO

<b>CO NO</b>	<b>Course Outcomes RESEARCH METHODOLOGY – P9CM1</b>
<b>CO – 1</b>	To ensure the scholars to get an identical view of research.
<b>CO – 2</b>	To have a practice of data collection and tools used.
<b>CO – 3</b>	To get an idea of processing data.
<b>CO – 4</b>	To know about the correlation analysis.
<b>CO – 5</b>	To have the scholars to get sampling methods.

<b>CO NO</b>	<b>Course Outcomes ADVANCED FINANCIAL MANAGEMENT – P9CM2</b>
<b>CO – 1</b>	To enable the scholars to accented knowledge of financial decision making.
<b>CO – 2</b>	To have an analytical ability of capital budgeting.
<b>CO – 3</b>	To have an interpretation skills in the area of finance.
<b>CO – 4</b>	To ensure the detailed dividend decision.
<b>CO – 5</b>	To focus on international financial management concepts.

<b>CO NO</b>	<b>Course Outcomes HUMAN RESOURCES MANAGEMENT – P9CM3</b>
<b>CO – 1</b>	To familiarity the scholars with the concepts of human resources management.
<b>CO – 2</b>	To enable the scholars to get human resources practices.
<b>CO – 3</b>	To have the knowledge on Role of human resources development.
<b>CO – 4</b>	To ensure the theories of personality development.
<b>CO – 5</b>	To have a depth information about human resources audit.

## PGDCA -

PO NO	Programme Outcomes
PO – 1	The students acquire knowledge about basics and fundamentals of information technology, basic programming concepts of procedure oriented and object oriented languages (C and Java)
PO – 2	It will equip the students with skills required for designing, developing applications in Information Technology
PO – 3	To provides a detailed coverage of the key concepts in operating systems, database application, mobile commerce and computer software security
PO – 4	To give hands on to students while developing real life IT application as part of the study
PO – 5	Students are able to use their knowledge to develop different web and windows based applications

PSO NO	Programme Specific Outcomes
PSO – 1	Students will able to learn the latest trends in various subjects of computers & information technology
PSO – 2	To expose the students to open Source technologies so that they become familiar with it and can seek appropriate opportunity in trade and industry
PSO – 3	Design applications for any desired needs with appropriate considerations for any specific need on societal and industrial aspects
PSO – 4	Students become eligible to pursue MCA and M.Sc. in Information Technology
PSO – 5	Students can also pursue network related courses like MCNA, CCNA, RHCE.

<b>CO NO</b>	<b>Course Outcomes PRINCIPLES OF INFORMATION TECHNOLOGY– PDCA9</b>
<b>CO – 1</b>	To give students an in-depth understanding of why computers are essential components in business, education and society
<b>CO – 2</b>	To provide hands-on use of Microsoft Office applications Word, Excel and PowerPoint. Completion of the assignments will result in MS Office applications knowledge and skills
<b>CO – 3</b>	To should have knowledge about concepts and principles of information technology

<b>CO NO</b>	<b>Course Outcomes MS-OFFICE LAB– PDCAL7</b>
<b>CO – 1</b>	To Design Company Letter Pad with water marking
<b>CO – 2</b>	To use built in formulas to find out student performance and budget analysis
<b>CO – 3</b>	To obtain the functions of MS-Access Database

<b>CO NO</b>	<b>Course Outcomes C – PROGRAMMING– PDCA10</b>
<b>CO – 1</b>	To Students will learn how to practically design programs
<b>CO – 2</b>	To design algorithm to solve a problem
<b>CO – 3</b>	To provide a thorough knowledge in high level programming language C

<b>CO NO</b>	<b>Course Outcomes C – PROGRAMMING LAB–PDCAL8</b>
<b>CO – 1</b>	To identify the situations where computational methods and computers would be useful
<b>CO – 2</b>	To find out the problem and abstract the programming task involved
<b>CO – 3</b>	To write the program on a computer, edit, compile, debug, correct, recompile and run it

<b>CO NO</b>	<b>Course Outcomes JAVA PROGRAMMING–QDCA3</b>
<b>CO – 1</b>	To inculcate knowledge on object oriented programming approach
<b>CO – 2</b>	To learn the syntax and semantics of the java programming language
<b>CO – 3</b>	To provide a thorough knowledge in high level of the Java Programming

<b>CO NO</b>	<b>Course Outcomes JAVA PROGRAMMING LAB–QDCAL1</b>
<b>CO – 1</b>	To Understanding the OOP's concepts, classes and objects
<b>CO – 2</b>	To acquire knowledge on String Handling, to be familiar with the concepts like Inheritance, Polymorphism and to write reusable modules (collections of functions)
<b>CO – 3</b>	To Write, compile, execute and troubleshoot Java programming

<b>CO NO</b>	<b>Course Outcomes RELATIONAL DATABASE MANAGEMENT SYSTEM–QDCA4</b>
<b>CO – 1</b>	To provide a thorough knowledge of the back-end environment and working knowledge in Database
<b>CO – 2</b>	It aims at acquainting students better with the basics of DBMS and practical knowledge of databases using SQL and PL/SQL
<b>CO – 3</b>	The key goal is to prepare students for a professional career in the field of data administration and databasedesign

<b>CO NO</b>	<b>Course Outcomes RELATIONAL DATABASE MANAGEMENT SYSTEM LAB–QDCAL2</b>
<b>CO – 1</b>	To Understand database concepts and structures and query language
<b>CO – 2</b>	To design and build a simple database system and demonstrate competence with the fundamental tasks involved with modeling, designing, and implementing a DBMS and to Execute various advance SQL queries related to Transaction Processing
<b>CO – 3</b>	To Perform PL/SQL programming using concept of Cursor Management, Error Handling, Package and Triggers

<b>CO NO</b>	<b>Course Outcomes COMPUTERIZED ACCOUNTING SOFTWARE –RDCA3</b>
<b>CO – 1</b>	To impart knowledge regarding concepts of Financial Accounting
<b>CO – 2</b>	To apply the knowledge of quantitative tools & techniques in the interpretation of data for managerial decision – making
<b>CO – 3</b>	To provide a thorough knowledge of the electronic accounting package and to enable the students to acquire practical knowledge in accounting software

<b>CO NO</b>	<b>Course Outcomes COMPUTERIZED ACCOUNTING SOFTWARE LAB –RDCAL1</b>
<b>CO – 1</b>	To Understand Tally ERP-9 with its importance & features
<b>CO – 2</b>	To get practical exposure of this software while solving problems and to attain knowledge on various concepts pertaining to formation of company & creation of different accounts
<b>CO – 3</b>	To know the concept of creating groups , ledgers and Taxation and To Create and form godown

<b>CO NO</b>	<b>Course Outcomes MOBILE COMMERCE –RDCA4</b>
<b>CO – 1</b>	To the primary goal is to prepare students for practical use of internet for online transactions like use ofm-banking
<b>CO – 2</b>	To get good knowledge of various modes of online payment using various UPIapps
<b>CO – 3</b>	To facilitate the students to acquire the basic knowledge in the field of mobile commerce

<b>CO NO</b>	<b>Course Outcomes HTML LAB – SDCAL3</b>
<b>CO – 1</b>	To Create and insert a graphic within a web page and to understand the concept of hyper link within a web page
<b>CO – 2</b>	To acquire knowledge to design a table within a web page
<b>CO – 3</b>	To attain skill on insert heading levels within a web page



<b>CO NO</b>	<b>Course Outcomes COMPUTER NETWORKS – SDCA3</b>
<b>CO – 1</b>	To teach the computer networking and enumerate the layers of OSI model and TCP/IP model
<b>CO – 2</b>	Gain core knowledge of Network layer routing protocols and IP addressing
<b>CO – 3</b>	To provide a thorough knowledge of the back-end environment and working knowledge in Networking

<b>CO NO</b>	<b>Course Outcomes VISUAL BASIC . Net – SDCA4</b>
<b>CO – 1</b>	To understand and use the concepts of objects, primitive value, message, method, selection control structure, repetition control structures, object reference, container, and method parameter
<b>CO – 2</b>	To enable students to create a software package using VB
<b>CO – 3</b>	To facilitate the students to acquire knowledge in the field of Visual basic.Net

<b>CO NO</b>	<b>Course Outcomes VISUAL BASIC . Net LAB – SDCAL2</b>
<b>CO – 1</b>	To Use a modern IDE to visually and programmatically create programs with GUI's and to develop window based Applications
<b>CO – 2</b>	To Understand and use the event-driven model and its interaction and to Design and implement applications using an object-oriented methodology
<b>CO – 3</b>	To program Single document and multiple document interface

## DEPARTMENT OF ECONOMICS (ALLIED)

CO NO	Course Outcomes BUSINESS ECONOMICS– P3ACM4
CO – 1	To enable the students to acquire knowledge on the fundamentals of Business Economics
CO – 2	To understand the students on economics and managerial economics, economics and managerial economics differentiation and functions of managerial economics
CO – 3	To know the objectives of a modern business firm, five fundamental concepts
CO – 4	To familiarise the students on demand, Law of demand, Types of demand, elasticity of demand, Malthusian theory of population and optimum level of population
CO – 5	To enhance sales forecasting, factors involved short term and long term forecasting methods of forecasting for an established product and new product
CO – 6	To know the profit planning, profit forecasting, pricing policies, methods of pricing policies

CO NO	Course Outcomes DYNAMICS OF INDIAN ECONOMICS – Q3ACM5
CO – 1	To enable the students to acquire knowledge on the Dynamics of Indian Economics
CO – 2	To enable nature and characteristics of Indian economy, Indicators of development poverty and unemployment ,population and economic development
CO – 3	To familiarise the students about agriculture, role and importance of Agriculture in the Indian economy, Irrigation, Green Revolution, Recent Trends in Agriculture in India and Public Distribution system.
CO – 4	To know the Industry, Industrial Policy Resolution, Trends and problems of Large scale and Small scale industries, Labour and industrial relations, Trade policy and EXIM policy in recent years
CO – 5	To understand the students planning, objectives, strategic of Tenth five year plan and eleventh five year plan
CO – 6	To enhance the students economic reforms, liberalization, privatization and globalisation national income

<b>CO NO</b>	<b>Course Outcomes GENERAL ECONOMICS – I – R3AHS4</b>
<b>CO – 1</b>	To enable the students to acquire knowledge on the fundamentals of economics
<b>CO – 2</b>	To understand the students introduction, definition of economics, Adam, Smith, Marshal Robbins, main divisions of economics and basic concept
<b>CO – 3</b>	To know the consumption, Law of diminishing, marginal, utility law of equimarginal utility, demand and elasticity of demand, supply and elasticity of supply
<b>CO – 4</b>	To familiarize the students on production, characteristics of land, labour, capital and organization, Malthus and optimum level of population, division of labour and large scale and small scale production
<b>CO – 5</b>	To enhance the value: price and output, perfect competition, imperfect competition, monopoly market, monopolistic competition, price and output determination
<b>CO – 6</b>	To enable the students on oligopoly(market), feature, kinked demand curve and price leadership

<b>CO NO</b>	<b>Course Outcomes GENERAL ECONOMICS - II- S3AHS5</b>
<b>CO – 1</b>	To enable the students acquire knowledge on the Principles of Economics
<b>CO – 2</b>	To understand the distribution, national income, general theory of distribution, Rent and recordation theory of rent, wages, marginal productivity theory of wage, Keynesian theory of interest and profit innovation theories of profit
<b>CO – 3</b>	To enhance money and banking, types and functions of money, functions of commercial banks and central bank
<b>CO – 4</b>	To familiarise the students about international trade, differences balance of trade, balance of payments objectives and functions of IMF, IBRD and WTO
<b>CO – 5</b>	To know the public finance, sources of public revenue, public expenditure, principles of Taxation and public debt
<b>CO – 6</b>	To learn knowledge on planning and economic development, mixed economy, tenth and eleventh five year plans in India, objectives and population

## DEPARTMENT OF TAMIL (S/F)

தமிழ்த்துறை (சுயநிதிப்பிரிவு)

CO NO	Course Outcomes கவிதையும் சிறுகதையும் - P1STA2
CO – 1	மரபுக்கவிதைக்கும் புதுக்கவிதைக்கும் உள்ள வேறுபாடுகளை அறிந்து கொள்வர்
CO – 2	கவிதைகள் வழியாக கவிஞர்கள் உணர்த்தும் வாழ்வியல் விழுமியங்களைத் தெரிந்து கொள்வர்
CO – 3	சிறுகதைகள் வெளிப்படுத்தும் நிகழ்காலச் சமுதாயச் சிந்தனைகளை, கருத்துக்களை உணர்ந்து கொள்ளுதல்
CO – 4	கவிதை, சிறுகதை இலக்கியப் படைப்பாக்கத் திறன் பெறுதல்
CO – 5	எழுத்திலக்கணத்தின் அடிப்படையான செய்திகளைத் தெரிந்து பிழையின்றி எழுதக் கற்றுக் கொள்ளுதல்

CO NO	Course Outcomes பக்தி இலக்கியமும் புதினமும் - Q1STA2
CO – 1	இறைவனிடம் நாயன்மார்களும், ஆழ்வார்களும் கொண்ட பக்தித்திறனை அறிந்து கொள்வர்
CO – 2	பழந்தமிழர்களிடம் இருந்த நம்பிக்கைகள் ஒருமைப்பாடு, மனிதநேயம், கொடைத் தன்மை குறித்து புரிந்து கொள்ளுதல்
CO – 3	இறைவனின் தன்மைகளை ஆழ்ந்துணர்ந்து பக்தி உணர்வை மேம்படுத்துகின்ற சூழலைக் கற்றுக் கொள்ளுதல்
CO – 4	சிற்றிலக்கியங்களின் அமைப்பு, வகைகள், இலக்கியங்கள் வெளிப்படுத்தும் கருத்துக்களை தெரிந்து கொள்வர்
CO – 5	புதின இலக்கியத்தின் வரலாறு குறித்தும், புதின இலக்கியங்கள் வெளிப்படுத்தும் வாழ்வியல் மதிப்புக்களையும் சமூகச் சிந்தனைகளையும் அறிந்து கொள்வர்

CO NO	Course Outcomes காப்பிய இலக்கியமும் நாடகமும் - R1STA2
CO – 1	காப்பியங்களின் அமைப்பையும் தோற்றத்தையும் அறிந்து கொள்ளுதல்
CO – 2	காப்பியங்கள் உணர்த்தும் அறங்களையும் வாழ்வியல் சிந்தனைகளையும் தெரிந்து கொள்ளுதல்
CO – 3	சமயக்காப்பியங்கள் வழியே சமயங்கள் குறித்த தெளிவையும், சமயப்பொறையையும் தெரிந்து கொள்ளுதல்
CO – 4	நாடக இலக்கியத்தின் தோற்றப்பின்னணியையும் அமைப்பையும் அறிந்து கொள்வர்
CO – 5	வரலாற்று நாடகத்தின் வழியாக சுதந்திரப் போராட்ட வீரர்களின் தியாகத்தையும் தேச வரலாற்றையும் தெரிந்து நாட்டுப்பற்றை வளர்த்துக் கொள்வர்

CO NO	Course Outcomes சங்க இலக்கியமும் உரைநடையும் - S1STA2
CO – 1	சங்கத் தமிழர்களின் வாழ்வியல் மாண்புகளை அறிந்து கொள்வர்
CO – 2	சங்கத் தமிழர்களின் பண்பாடு, வீரம், ஒழுக்கம், அறம், கொடை பற்றிய செய்திகளை அறிந்து தங்கள் வாழ்வை நெறிப்படுத்தத் தெரிந்து கொள்ளுதல்
CO – 3	சங்க இலக்கியங்களில் உள்ள பழந்தமிழரின் ஆளுமைகளையும், அடையாளங்களையும் தெரிந்து கொள்ளுதல்
CO – 4	ஆய்வுச் சிந்தனைகளைக் கொண்ட அறிஞர்களின் உரைநடை வழியாக தமிழ்மொழியின் பெருமையை அறிந்து உரைநடை படைப்பாக்கத்திறனை வளர்த்துக் கொள்வர்
CO – 5	பண்டைத்தமிழர்களின் இயற்கையோடு இயைந்த வாழ்க்கைமுறையையும், புறவாழ்வு விழுமியங்களையும் அகப்புற இலக்கண வழி தெரிந்து கொள்ளுதல்

CO NO	Course Outcomes அடிப்படைத் தமிழ் - 1 (NME)
CO – 1	எழுத்திலக்கண அடிப்படையில் தமிழ் எழுத்துக்களை அறிந்து கொள்ளுதல்
CO – 2	தமிழ்ச் சொற்களை முறைப்படுத்தி சொற்றொடர் உருவாக்க கற்றுக் கொள்ளுதல், பிறமொழிச் சொற்களை அடையாளப்படுத்துதல்
CO – 3	தமிழ் மாதங்கள் குறித்தும், ஆங்கில மாதங்களை தமிழிலும் அறிந்து கொள்வர்
CO – 4	சங்க, நீதி இலக்கியங்கள் குறித்த அறிமுகமும் அவை உணர்த்தும் வாழ்வியல் கட்டமைப்பையும் கற்றுணரந்து கொள்ளுதல்
CO – 5	குறிப்பிட்ட சில தமிழ்ச் சொற்களின் பொருள்களை அறிந்து கொள்ளுதல்

CO NO	Course Outcomes சிறப்புத்தமிழ் - 1 (NME)
CO – 1	புதுக்கவிதை உணர்த்தும் வாழ்வியல் கருத்துக்களை எடுத்துரைத்தல்
CO – 2	சிறுகதைகளின் அமைப்பையும், சிறுகதைகள் வெளிப்படுத்தும் சமுதாயச் சிந்தனைகளையும் அறியச் செய்தல்
CO – 3	கவிதை, சிறுகதை படைக்கும் திறன் பெறுதல்
CO – 4	எழுத்திலக்கண அடிப்படையில் உயிரெழுத்துக்கள், மெய்யெழுத்துக்கள், உயிர்மெய்எழுத்துக்களை தெரிந்து கொள்ளுதல்
CO – 5	பிழையின்றி கடிதம் எழுதும் பழக்கத்தைக் கற்றுக் கொடுத்தல் அதன்வழி சமூக குறைபாடுகளைக் களைவர்

CO NO	Course Outcomes அடிப்படைத் தமிழ் - 2 (NME)
CO – 1	தமிழ் ஒருமை பன்மைச் சொற்களை அடையாளம் கண்டுணர்தல்
CO – 2	தமிழ் இலக்கண மரபுகளை புரிந்து பிழையின்றி எழுதும் திறன் பெறுவர்
CO – 3	கணித எண்களை தமிழ் எழுத்தால் எழுதும் திறனை வளர்த்துக் கொள்ளுதல்
CO – 4	பக்தி இலக்கியங்களை அறிமுகம் செய்து அவ்இலக்கியங்கள் உணர்த்தும் ஒருமைப்பாடு, மனிதநேயம், கொடைத்தன்மை, பக்தித்திறன், சமயப்பொறையை அறிந்து கொள்ளுதல்
CO – 5	குறிப்பிட்ட சில தமிழ்ச்சொற்களின் பொருளை அறிந்து கொள்ளுதல்

CO NO	Course Outcomes சிறப்புத்தமிழ் - 2 (NME)
CO – 1	மரபுக்கவிதையின் அமைப்பையும் கவிதைகள் தரும் சிந்தனையையும் அறிந்து கொள்ளுதல்
CO – 2	அற இலக்கியங்கள் உணர்த்தும் வாழ்வியல் நெறிமுறைகளைக் கற்றுக் கொள்வர்
CO – 3	எழுத்துப்பிழை, சந்திப்பிழையின்றி எழுதக் கற்றுக் கொள்ளுதல்
CO – 4	சொல்லிலக்கண வழி சொற்களுக்குரிய பாகுபாட்டினை அறியச் செய்தல்
CO – 5	சங்க இலக்கியம், அற இலக்கியம், காப்பியங்களின் சிறப்பினை எடுத்துரைத்தல். இலக்கியங்கள் கற்றுக் கொடுக்கும் வாழ்வியல் உண்மைகளைக் கற்றுக் கொள்ளுதல்

## DEPARTMENT OF ENGLISH (S/F)

### B.A ENGLISH - SUEN

PO NO	Programme Outcomes
PO – 1	English Literature course in the Department of English expose students to a wide range of writing from Indian, British, and American.
PO – 2	It helps students explore how writers use the creative resources of language in fiction, poetry, non-fiction prose, and drama-to explore the entire range of human experience.
PO – 3	Students are expected to strive, to be imaginative, rhetorically dexterous, and technically proficient and as a result, to gain a deeper insight into life.
PO – 4	Social Interaction: The students will interact effectively with peers, faculty and management and effectively develop themselves in holistic cognizance of their surroundings and appreciate aesthetics in everyday life.
PO – 5	Effective Citizenship: The students will be able to exercise their rights correctly, and carry out their duties as responsible citizens of their country

PSO NO	Programme Specific Outcomes
PSO – 1	Acquaint the students with the social events that contributed to the growth of literature.
PSO – 2	Present insight of various schools of thought and literary movements.
PSO – 3	Introduce the major writers of English of various countries and acquaint the students with their works.
PSO – 4	Ensure a comprehensive study of the various genres representative of different ages.
PSO – 5	Enhance their languages skills through functional and applied grammar

CO NO	Course Outcomes ENGLISH LANGUAGE I – P2SEN1
CO – 1	Student will enhance their awareness of correct usage of English grammar in writing and speaking
CO – 2	To enable students to communicate in English in real – life situations



<b>CO – 3</b>	To improve their proficiency in English language.
<b>CO – 4</b>	Students will enlarge their vocabulary by keeping a vocabulary journal
<b>CO – 5</b>	Student will strengthen their ability to write academic papers, essays and summaries using the process approach.

<b>CO NO</b>	<b>Course Outcomes DRAMA – P3CEN5</b>
<b>CO – 1</b>	To enable students to develop a vivid knowledge of the genre.
<b>CO – 2</b>	To read drama scripts in English.
<b>CO – 3</b>	Students are formed into skilled knowledgeable and ethical interpreters of literary texts in English by nurturing their ability to understand drama.
<b>CO – 4</b>	They become will explain with the literary genre of drama. The rhetorical aspects of drama help them understand how to represent their experience and ideas critically, creatively and persuasively through the medium of language.
<b>CO – 5</b>	Students also obtain a value orientation by means of poetic justice in tragedy or comedy and comprehended human action and their consequences.

<b>CO NO</b>	<b>Course Outcomes GRAMMAR – P3CEN4</b>
<b>CO – 1</b>	To increase confidence in their ability to read comprehends organize and retain written information.
<b>CO – 2</b>	To use standard grammar, punctuation and spelling, be clear and concise informal technical writing
<b>CO – 3</b>	To enable students make a systematic study of the fundamentals of grammar and have a comprehensive graph of the Modern English Language through pictorial, applied grammar and composition.
<b>CO – 4</b>	Students will improve their speaking ability in English both in terms of fluency and comprehensibility
<b>CO – 5</b>	Students will enhance their awareness of correct usage of English grammar in writing and speaking

<b>CO NO</b>	<b>Course Outcomes LITERARY FORMS – P3AEN2</b>
<b>CO – 1</b>	To enable students understand the different genres.
<b>CO – 2</b>	To Explore work of literature classified by form.
<b>CO – 3</b>	To explore issue and question that arise in connection with literary form
<b>CO – 4</b>	To introduce students to the basics of novel as a literary form.
<b>CO – 5</b>	To expose students to some of the best→ examples of novel.

<b>CO NO</b>	<b>Course Outcomes COMMUNICATIVE ENGLISH – P4ECE1</b>
<b>CO – 1</b>	To expose students to the best examples of prose and poetry in English so that they realize the beauty and communicative power of English.
<b>CO – 2</b>	To enable students understand the different genres.
<b>CO – 3</b>	To develop the ability to appreciate ideas and→ think critically.
<b>CO - 4</b>	Improve LSRW- listening, speaking, reading and writing skills and the related sub-skills.
<b>CO – 5</b>	To analyze and utilize body language to their advantage

<b>CO NO</b>	<b>Course Outcomes LANGUAGE ENGLISH II – Q2SEN2</b>
<b>CO – 1</b>	To develop interest in prose, poetry and short stories in English and appreciate the language and literary elegance.
<b>CO – 2</b>	To develop the habit of effective reading.
<b>CO – 3</b>	Develop the functional communicative aspect of language through a series of real life task.
<b>CO – 4</b>	Students will increase their reading speed and comprehension of academic articles
<b>CO – 5</b>	Students will strengthen their ability to write academic papers, essays and summaries the process approach

<b>CO NO</b>	<b>Course Outcomes POETRY – Q3CEN5</b>
<b>CO – 1</b>	To enable them to understand the thought and imagination contained in the poem.
<b>CO – 2</b>	To enable the students to appreciate the poem.
<b>CO – 3</b>	To engage in close analysis of narrative and poetic language which helps in applying technical analytical terms.
<b>CO – 4</b>	Develop a deeper appreciation of cultural diversity by introducing them to poetry from a variety of cultures throughout the world
<b>CO – 5</b>	Apply the principles of literary criticism to the analysis of poetry

<b>CO NO</b>	<b>Course Outcomes FICTION –Q3CEN6</b>
<b>CO – 1</b>	To help the students will be able to recognize the elements of the novel.
<b>CO – 2</b>	Fiction is verbal machine which transport the readers in space and time.
<b>CO – 3</b>	To explore the entire range of human experience.
<b>CO – 4</b>	Become well acquainted with the literary genre of Novel and Short Story and literary devices of allegory and metaphor, satire, and stream of consciousness technique Enhance Reading skills and understand how to represent their experience and ideas.
<b>CO – 5</b>	Critically, creatively, and persuasively through the medium of language. Understand the social, historical and political backgrounds of the world of the novelists.

<b>CO NO</b>	<b>Course Outcomes SOCIAL HISTORY OF ENGLAND - Q3AEN3</b>
<b>CO – 1</b>	To introduce the students to the social background that contributed to the development of English literature.
<b>CO – 2</b>	Recognize and discuss selected literary texts from the renaissance to the present.
<b>CO – 3</b>	Analyses historical process that shape individual and communities.
<b>CO – 4</b>	Develop ability to pursue research in the field of classics
<b>CO – 5</b>	Develop academic and practical skills in terms of communication and presentation and also learn about human and literary values of classical period.

<b>CO NO</b>	<b>Course Outcomes COMMUNICATIVE ENGLISH II - Q4ECE2</b>
<b>CO – 1</b>	To develop the ability to communicate powerfully in carrying routine conversation.
<b>CO – 2</b>	To enlarge the time to improve your communication skills can be highly rewarding.
<b>CO – 3</b>	To learn to analyze unfamiliar words by understanding the structure of English language.
<b>CO – 4</b>	To impart better writing skills by sensitizing the learners to the dynamics of effective writing
<b>CO – 5</b>	To stimulate their Critical thinking by designing and developing clean and lucid writing skills.

<b>CO NO</b>	<b>Course Outcomes ENGLISH LANGUAGE III - R2SEN4</b>
<b>CO – 1</b>	To develop the major language skills – Listening Comprehension, spoken language, Reading Comprehension and written expression.
<b>CO – 2</b>	To knowing English increases your chances of getting a good job in a multinational company.
<b>CO – 3</b>	It is also the language of international, media and the internet, so learning English is important for socializing and entertainment as well as work.
<b>CO – 4</b>	Being able to speak more effectively will help you to build stronger relationships with the people around you, and get your ideas across successfully.
<b>CO – 5</b>	Understand the concept of the theme and main ideas of the text.

<b>CO NO</b>	<b>Course Outcomes AMERICAN LITERATURE - R3CEN6</b>
<b>CO – 1</b>	To expose the students to the culture of American Literature
<b>CO – 2</b>	To examines the culture of the America from the colonial period through the early national period of the united states.
<b>CO – 3</b>	To deal with the prose and poetry written in the united states from colonial time to the present.
<b>CO – 4</b>	Students will be able to appreciate and evaluate the literary merits of American literature

<b>CO – 5</b>	To analyze elements of literature such as imagery theme, ornamentation, style tone, etc.,
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<b>CO NO</b>	<b>Course Outcomes PROSE - R3AEN4</b>
<b>CO – 1</b>	Students develop the ability to understand the passage by silent reading and grasp its meaning.
<b>CO – 2</b>	Students develop to read with correct pronunciation stress, intonation and articulation of voice
<b>CO – 3</b>	Students enrich their active and passive vocabulary
<b>CO – 4</b>	To enhance the understanding and increase pleasure in reading
<b>CO – 5</b>	To enable learner to understand the passage by quiet reading.

<b>CO NO</b>	<b>Course Outcomes HEL (OR) PHONETICS - R3EEN2</b>
<b>CO – 1</b>	To help the students to know the broad range of literature in English from the beginning to the present.
<b>CO – 2</b>	To know the study of the elementary of phonetics.
<b>CO – 3</b>	To focus on historical period issues are theme a critical approach, or a literary genre.
<b>CO – 4</b>	Discuss how literature also influences the social and political history of each period
<b>CO – 5</b>	To enable the students have a systematic study of fundamentals of phonetics.

<b>CO NO</b>	<b>Course Outcomes SHORT STORIES - R3SEN1</b>
<b>CO – 1</b>	To promote writing skills in the context of writing a short story..
<b>CO – 2</b>	To develop the ability to identify the narrative tenses
<b>CO – 3</b>	Students know about the importance of English short stories.
<b>CO – 4</b>	Students effectively communicate ideas related to the literary genre of the short story during class and group activities

<b>CO – 5</b>	Students write analytically about short stories using strategy
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<b>CO NO</b>	<b>Course Outcomes ENGLISH FOR EMPLOYMENT - R4NEN1</b>
<b>CO – 1</b>	To enable the student face competitive examinations and also develop their vocabulary.
<b>CO – 2</b>	To solve problem using required skills or knowledge.
<b>CO – 3</b>	To verify value of evidence.
<b>CO – 4</b>	To contribute to their overall personality development by improving their communicative skills.
<b>CO – 5</b>	To develop their critical thinking capabilities focused through the course as an important need.

<b>CO NO</b>	<b>Course Outcomes COMMUNICATIVE ENGLISH IV – R4ECE3</b>
<b>CO – 1</b>	To promote spontaneous communication in different occasions pertaining to the needs
<b>CO – 2</b>	To increase vocabulary through the study of word parts, use of context clues and practice with a dictionary.
<b>CO – 3</b>	To learn to analyze unfamiliar words by understanding the structure of English language
<b>CO – 4</b>	The students gain sufficient practice in writing skills.
<b>CO – 5</b>	They can write essays and reports and differentiate between objective and subjective writing.

<b>CO NO</b>	<b>Course Outcomes ENGLISH LANGUAGE IV - S2SEN5</b>
<b>CO – 1</b>	To provide adequate skill training in functional grammar.
<b>CO – 2</b>	Students will be able to recognize and understanding the meaning of target grammatical structures in return and spoken form
<b>CO – 3</b>	Will be able to analyze literary works prose and poetry

CO – 4	Grammar, reading and writing exercises will make the student to read any text and understand it and make them to think beyond the text.
CO – 5	Students would have learnt the importance of skills of writing, reading, speaking and listening

CO NO	Course Outcomes SHAKESPEARE - SECEN7
CO – 1	To Acquaint The Students With Elizabeth Drama And Tends Of Drama During The Elizabethan Period
CO – 2	Develop sufficient ability for reading and understanding Elizabethan English to allow for better comprehension of Shakespeare's plays poems and sonnets
CO – 3	To analyze verbally and writing the relationship of the individual reader to Shakespearean literature.
CO – 4	Assess reaction to the themes and issues brought up in Shakespeare's plays, poems and sonnets
CO – 5	Compare the experience with themes and issues brought in Shakespeare's plays

CO NO	Course Outcomes BRITISH LITERATURE – S3AEN5
CO – 1	To help the students to view British literature in its socio-cultural political context.
CO – 2	To understand the theme, structure and style in British poetry, prose, drama and fiction.
CO – 3	Students develop and display a working knowledge of the historical and cultural context of British literature from the Anglo-Saxon period to the 18 <sup>th</sup> century
CO – 4	To learn various interpretative techniques to approach literary texts of varied genre.
CO – 5	Trace the developmental history from old English period to the 19 <sup>th</sup> century.

CO NO	Course Outcomes ROMANTIC AGE (OR) ENGLISH LITERATURE FOR COMPETITIVE EXAM – S3EEN3
CO – 1	To expose the students to familiarize the impact of the French revolution on romantic critical tradition

<b>CO – 2</b>	Students develop the ability to define romanticism and identify its various themes.
<b>CO – 3</b>	To interpret and analyze the works of major romantic including Blake Burns , Wordsworth , Coleridge, Byron, Shelley, Keats and others
<b>CO – 4</b>	To write sound skillful essays showing insight into the major works of this Romantic period.
<b>CO – 5</b>	Students develop skill to recognizance of the historical and intellectual backgrounds dominating the periods being studied.

<b>CO NO</b>	<b>Course Outcomes SHORT STORIES – S3SEN2</b>
<b>CO – 1</b>	To promote the skill of appreciating and interpreting literature students analyze short stories for their structure and meaning, using correct terminology
<b>CO – 2</b>	Students write methodically about short stories using MLA guiding principle.
<b>CO – 3</b>	Students effectively communicate ideas related to the literary genre of must story during class and group activities.
<b>CO – 4</b>	Students identify and describe distinct literary characteristics of the short stories form.
<b>CO – 5</b>	Students develop and display working knowledge of the short story as a literary genre

<b>CO NO</b>	<b>Course Outcomes ENGLISH FOR EMPLOYMENT IV – S4NEN2</b>
<b>CO – 1</b>	To enable the students to face competitive examinations
<b>CO – 2</b>	To develop the vocabulary.
<b>CO – 3</b>	The students would have strengthened their knowledge in pronunciation, phonetics and differentiating miscommunication from effective communication.
<b>CO – 4</b>	Students would have learnt the importance of skills of writing, reading, speaking and listening.
<b>CO – 5</b>	The students would have learnt the factors influencing the communication and the barriers of



	communication.
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<b>CO NO</b>	<b>Course Outcomes COMMUNICATIVE ENGLISH IV – S4ECE3</b>
<b>CO – 1</b>	To introduce different situation to interact and how to use polite expression in different situations
<b>CO – 2</b>	Develop faculty of skill in students
<b>CO – 3</b>	Increasing in-depth knowledge of the core areas of subject
<b>CO – 4</b>	Equip students with analytical skills in communicative English
<b>CO – 5</b>	They will help the student to write essays, and reports. Thereby they will be able to differentiate objective and subjective writing

<b>CO NO</b>	<b>Course Outcomes NEW LITERATURE – T3CEN11</b>
<b>CO – 1</b>	To expose the students to the artistic moral and cultural manners of the literature written in English by writers of various common wealth countries and during the colonial and post colonial period
<b>CO – 2</b>	Students would be able to differentiate between canonical and the New literature
<b>CO – 3</b>	Students would have understood the effectiveness of the detective fiction, fantasy/mythology and romance which have a mass appeal
<b>CO – 4</b>	Students would have gained a better understanding of the New roots of literature.
<b>CO – 5</b>	learn to see critically the rising trends of globalization, capitalism and multi-culturalism

<b>CO NO</b>	<b>Course Outcomes ENGLISH LANGUAGE TEACHING – T3CEN10</b>
<b>CO – 1</b>	To enhance the ability of the students in teaching English language.
<b>CO – 2</b>	Students will be able to communicate clearly, effectively and handle their day to day affairs well with their knowledge of language skills

<b>CO – 3</b>	Students will read for intensive information retrieval and interpretation required by university studies.
<b>CO – 4</b>	Students will develop abilities as critical thinkers, readers and writers
<b>CO – 5</b>	Students will achieve these outcomes through the development of the following skills: Focused reading skills work and exams: discussions of longer articles: and summary writing including the drafting process

<b>CO NO</b>	<b>Course Outcomes LITERARY THEORIES – T3CN12</b>
<b>CO – 1</b>	To develop a skill in applying various literary theories in interpretation a specific text.
<b>CO – 2</b>	Students will be able to learn the history literary criticism and various literary theories.
<b>CO – 3</b>	Develop a skill in pertain various literary theories in comprehend definite text.
<b>CO – 4</b>	Students would have learnt the scope of orientalism and its importance.
<b>CO – 5</b>	Students would have understood different aspects of literary studies known as theory.

<b>CO NO</b>	<b>Course Outcomes JOURNALISM – T3EEN5</b>
<b>CO – 1</b>	To learn the basic principles of journalism
<b>CO – 2</b>	To expose the students to art of translation
<b>CO – 3</b>	Students develop ability to the review the global history of journalism
<b>CO – 4</b>	Students develop ability to demonstrate competency in effective communication.
<b>CO – 5</b>	Students develop skill to evaluate different trends in journalism

<b>CO NO</b>	<b>Course Outcomes SHORT STORIES - T3SEN4</b>
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<b>CO – 1</b>	To encourage the ability of value the world literature.
<b>CO – 2</b>	To improve their sentence construction and procedure.
<b>CO – 3</b>	To scholar will be able to essay centre of attention and formation.
<b>CO – 4</b>	Present a stand to communicate inspiration and ability
<b>CO – 5</b>	Boosts up critical thinking and writing ignite critical thinking and authority a work of art

<b>CO NO</b>	<b>Course Outcomes INDIAN WRITING IN ENGLISH - U3CEN4</b>
<b>CO – 1</b>	Students have understood how well the Indian culture is reflected in Literature.
<b>CO – 2</b>	Students will be able to analysis how and why Indian literature emerged as a distinct field of study
<b>CO – 3</b>	Trace the develop of history of English literature from its beginning to the present day
<b>CO – 4</b>	Students would have learnt the values of spiritual refinement in human life
<b>CO – 5</b>	Students have understood how well the Indian culture is reflected in Literature.

<b>CO NO</b>	<b>Course Outcomes LITERARY CRITICISM - U3CEN17</b>
<b>CO – 1</b>	To learn the history of literary criticism and various literary theories.
<b>CO – 2</b>	Trace the historical development of criticism
<b>CO – 3</b>	Develop an aptitude for critical analysis of literary works
<b>CO – 4</b>	Interpret literary works in the light of various critical approaches
<b>CO – 5</b>	Compare and contrast major trends within literary theory of the 20th century

<b>CO NO</b>	<b>Course Outcomes 20<sup>th</sup> CENTURY LITERATURE - U3CEN16</b>
<b>CO – 1</b>	To learn the various themes of twentieth century literature.
<b>CO – 2</b>	Study and interpret representative writing from 20 <sup>th</sup> century
<b>CO – 3</b>	Acquaint them with great tradition of modern European drama.
<b>CO – 4</b>	Examine various literary techniques that writers of 20 <sup>th</sup> century we are writing their texts, and demonstrate an understanding of there techniques
<b>CO – 5</b>	Trace the nature of influence that all the classical texts have on modern English in British writings

<b>CO NO</b>	<b>Course Outcomes WOMEN WRITERS - U3CEN15</b>
<b>CO – 1</b>	To learn how and on what grounds women writings are can be considered as separate genre.
<b>CO – 2</b>	To differentiate between sex and gender and how the later is a social construction
<b>CO – 3</b>	Read and understand canonical texts written by women writers across different ages.
<b>CO – 4</b>	Be aware about the issue and concerns of the women writers of the developed, developing and under-developed countries.
<b>CO – 5</b>	Students would have been aware of the negative impact of female feticide and woman exploitation in society.

<b>CO NO</b>	<b>Course Outcomes SHORT STORIES SPEICAL AUTHOR SHASHIDESH PANDE - U3SEN5</b>
<b>CO – 1</b>	To promote the skill of appreciating the short stories in Indian writing in English
<b>CO – 2</b>	To be able to explain how different types of prose convey stories or meanings
<b>CO – 3</b>	To be familiar with and able to use the English-language terminology connected to literary prose.
<b>CO – 4</b>	Write a text which analyzes literary works in correct English.
<b>CO – 5</b>	To be able to read literary prose texts critically and independently.

**DEPARTMENT OF MATHEMATICS (S/F)**

## B.Sc MATHEMATICS - SUMA

PO NO	Programme Outcomes
PO – 1	To acquire knowledge in various aspect of mathematics.
PO – 2	To compute the algebraic, geometric and statistical quantities using suitable tools.
PO – 3	To comprehend the mathematical tools from basic axioms.
PO – 4	To realize the mathematical applications in other fields.
PO – 5	To attain analytic thinking.

PSO NO	Programme Specific Outcomes
PSO – 1	To inculcate the proficiency of writing proofs in pure mathematics papers through assignments.
PSO – 2	To acquire knowledge in analysis which include numbers, sets, functions and convergence.
PSO – 3	To motivate the students in order to acquire knowledge in aptitude examinations. Nurture the skill of understanding and explaining the theorems in right way through seminars.
PSO – 4	To nurture the skill of understanding and explaining the theorems in right way through seminars.
PSO – 5	To inculcate the logical thinking and quantitative aptitude

CO NO	Course Outcomes ANALYTICAL GEOMETRY 3D & VECTOR CALCULUS – P3CMA3
CO – 1	To attain knowledge about the angles and planes in two dimensional.

<b>CO – 2</b>	To calculate the shortest distance between two lines.
<b>CO – 3</b>	To get vast knowledge about the sphere.
<b>CO – 4</b>	To discuss about the vector differentiation (Gradient, Curl and Divergence).
<b>CO – 5</b>	To demonstrate an understanding of the Green's theorem and Stroke's theorem and also to know about the detailed study of vector integration.

<b>CO NO</b>	<b>Course Outcomes CALCULUS &amp; TRIGNOMETRY – P3CMA2</b>
<b>CO – 1</b>	To describe the concepts of curvature, evolutes and envelopes.
<b>CO – 2</b>	To discriminate the multiple integrals and beta, gamma functions.
<b>CO – 3</b>	To gain Knowledge in the expansion of $\sin nx$ , $\cos nx$ and $\tan nx$ .
<b>CO – 4</b>	To explain the concept of hyperbolic function and logarithm of a complex number.
<b>CO – 5</b>	To understand the ideas of fourier series and trigonometric series.

<b>CO NO</b>	<b>Course Outcomes CLASSICAL ALGEBRA – Q3CMA5</b>
<b>CO – 1</b>	To acquire knowledge about sequence and the concept of algebra of limits.
<b>CO – 2</b>	To learn about the different kinds of series.
<b>CO – 3</b>	To solve the problems using root test and ratio test.
<b>CO – 4</b>	To develop the skills for solving the reciprocal equations.
<b>CO – 5</b>	To gain knowledge about concept of diminishing and increasing the roots.

<b>CO NO</b>	<b>Course Outcomes DIFFERENTIAL EQUATIONS – Q3CMA4</b>
<b>CO – 1</b>	To understand the methods in solving the linear differential equations with constant coefficient.

<b>CO – 2</b>	To determine the methods in solving the linear differential equations with variable coefficient. Know about the method of solving differential equation using variation of parameters.
<b>CO – 3</b>	To solve the first order and first degree order differential equations, simultaneous linear equations with constant coefficient and total differential equations.
<b>CO – 4</b>	To solve the first order partial differential equations for some standard types.
<b>CO – 5</b>	To understand the concept of Laplace transform and its application in solving differential equations. Use inverse Laplace transform to return formation funs.

<b>CO NO</b>	<b>Course Outcomes MODERN ALGEBRA – R3CMA5</b>
<b>CO – 1</b>	To clarify Mathematical Principles of general algebraic structure of various sets such as real numbers, complex numbers etc.
<b>CO – 2</b>	To express a central role of cosets in Lagrange’s theorem.
<b>CO – 3</b>	To compare the properties of isomorphic groups.
<b>CO – 4</b>	To acquire knowledge about algebraic structure of ring.
<b>CO – 5</b>	To analyze the properties of an integral domain.

<b>CO NO</b>	<b>Course Outcomes PROGRAMMING IN C – R3EMA1</b>
<b>CO – 1</b>	To develop programming skills using the fundamentals and basic of C language.
<b>CO – 2</b>	To study the advantages of user data type that provides flexibility for application development.
<b>CO – 3</b>	To enable to usage of arrays, structure and functions.
<b>CO – 4</b>	To apply pointer concepts in C.
<b>CO – 5</b>	To write the program that perform operations using file.

<b>CO NO</b>	<b>Course Outcomes PROGRAMMING IN C PRATICALS – R3EMAL1</b>
<b>CO – 1</b>	To write the C code for a given algorithm

<b>CO – 2</b>	To write a program to print different data types in C of their ranges.
<b>CO – 3</b>	To know about the concepts in problem solving.
<b>CO – 4</b>	To do programming in C language.
<b>CO – 5</b>	To write diversified solutions using C languages.

<b>CO NO</b>	<b>Course Outcomes MS OFFICE</b>
<b>CO – 1</b>	To navigate the word processor to create word documents for office use.
<b>CO – 2</b>	To understand the basic concepts of find and replace, tool base, Header& Footer.
<b>CO – 3</b>	To understand the basic machines and navigation of an Excel spread sheet and signing a work sheet for the organization purpose.
<b>CO – 4</b>	To apply the knowledge of mathematical functions and make the calculation easier for enormous data.
<b>CO – 5</b>	To familiarize the basic concepts and appreciate the application of data base system.

<b>CO NO</b>	<b>Course Outcomes MS OFFICE PRATICALS</b>
<b>CO – 1</b>	To have clear understanding about design a document using MS Word.
<b>CO – 2</b>	To create different types of chart for sum data by using MS Excel.
<b>CO – 3</b>	To perform mathematical function by using MS Excel.
<b>CO – 4</b>	To learn to create the document into slide-show by using MS PowerPoint.
<b>CO – 5</b>	To have clear understanding about Executing Queries by using MS Access.

<b>CO NO</b>	<b>Course Outcomes MATHEMATICS FOR COMPETATIVE EXAMS I – R4NMA1</b>
<b>CO – 1</b>	To learn about HCF, LCM, Square roots and Cube roots and problems on numbers.



<b>CO – 2</b>	To solve problems on ages, percentages, profit and loss, partnership.
<b>CO – 3</b>	To solve the problems on chain rule, simple and compound interest.
<b>CO – 4</b>	To understand series completion and coding decoding, Blood relations problems.
<b>CO – 5</b>	To compute puzzle test, Direction sense test and Logical Venn diagrams.

<b>CO NO</b>	<b>Course Outcomes ANCILLARY MATHEMATICS I – R3AMA2</b>
<b>CO – 1</b>	To gain knowledge about the concept of binomial and exponential series.
<b>CO – 2</b>	To determine the reciprocal equation and transformation of equation.
<b>CO – 3</b>	To describe the concept of radius of curvature and center of curvature.
<b>CO – 4</b>	To discriminate the integral calculus and reduction formula.
<b>CO – 5</b>	To understand the ideas of Demovier’s theorem and hyperbolic function

<b>CO NO</b>	<b>Course Outcomes REAL ANALYSIS – S3CMA6</b>
<b>CO – 1</b>	To outline the knowledge of fundamental properties in metric space.
<b>CO – 2</b>	To discuss deeply about the concepts of continuous functions between spaces.
<b>CO – 3</b>	To carry out the facts in a compactness and completeness of a metric space.
<b>CO – 4</b>	To construct the facts about the connected subsets of real numbers.
<b>CO – 5</b>	To demonstrate an understanding of the Baire’s category theorem and cantor intersection theorem.

<b>CO NO</b>	<b>Course Outcomes PROGRAMMING IN C++ – S3EMA3</b>
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<b>CO – 1</b>	To implement object oriented programming concept using basic syntaxes of control structures, strings and function for developing skills of logic building activity.
<b>CO – 2</b>	To identify classes, objects, members of a class and the relationships among them needed for finding the solution to specific problem.
<b>CO – 3</b>	To demonstrate how to achieve reusability using inheritance, virtual base classes and describes faster application development can achieved.
<b>CO – 4</b>	To understanding the use of different exception handling mechanics.
<b>CO – 5</b>	To know about the importance of classes and objects along with constructors, arrays and functions.

<b>CO NO</b>	<b>Course Outcomes PROGRAMME IN C++ PRATICALS – S3EMAL2</b>
<b>CO – 1</b>	To understand the difference between top-down and bottom – up approach.
<b>CO – 2</b>	To apply the concepts of object-orientation programming in constructor and destructor.
<b>CO – 3</b>	To understand how to apply the major Object-oriented concepts to implement inheritance.
<b>CO – 4</b>	To read and write data from files in C++ programs.
<b>CO – 5</b>	To write a program to operator overloading.

<b>CO NO</b>	<b>Course Outcomes RELATIONAL DATA BASE MANAGEMENT SYSTEM</b>
<b>CO – 1</b>	To understand about traditional approach to information processing. Use of database DBMS, data manipulation language.
<b>CO – 2</b>	To compete the Database models, hierarchical network DBMS environment.
<b>CO – 3</b>	To demonstrate to build a database, creating opening, database entering data, EXACT searching.
<b>CO – 4</b>	To editing and modifying database, creating and printing formatted, multiple data file.
<b>CO – 5</b>	To analyze file maintenance performance memory variable command file creation.

<b>CO NO</b>	<b>Course Outcomes RELATIONAL DATA BASE MANGEMENT SYSTEM PRATICAL</b>
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<b>CO – 1</b>	To demonstrate an understanding of the elementary feature of RDBMS.
<b>CO – 2</b>	To design conceptual models of a data base using ER modelling for real life application.
<b>CO – 3</b>	To develop structured query language.
<b>CO – 4</b>	To design efficient PL/SQL programs to access database.
<b>CO – 5</b>	To implement a database scheme for a given problem domain.

<b>CO NO</b>	<b>Course Outcomes MATHEMATICS FOR COMPETATIVE EXAM II– S4NMA2</b>
<b>CO – 1</b>	To know about time and work, time and distance and Boats and streams.
<b>CO – 2</b>	To acquire knowledge Alligation of mixture and race games of skill.
<b>CO – 3</b>	To understand the concept of permutation and combinations, probability and heights and distance.
<b>CO – 4</b>	To gain knowledge about Mathematical operations, Arithmetical reasoning.
<b>CO – 5</b>	To solve the problems logic type I and type II.

<b>CO NO</b>	<b>Course Outcomes ANCILLARY MATHEMATICS II – S3AMA3</b>
<b>CO – 1</b>	To compare and contrast the vector differentiation and their properties.
<b>CO – 2</b>	To get the knowledge about the vector integration through the simple applications of Gauss, Green and Stroke’s theorem.
<b>CO – 3</b>	To attain the details of vector differentiation and also the integrating factors.
<b>CO – 4</b>	To know the methods of finding complementary functions and to find the second order differential equations with RHS in the trigonometric form.
<b>CO – 5</b>	To acquire Laplace Transform, partial differential equations, Lagrange’s equation.

<b>CO NO</b>	<b>Course Outcomes ASTRONOMY – S3SMA1</b>
<b>CO – 1</b>	To learn about celestial sphere.
<b>CO – 2</b>	To know about the Earth.
<b>CO – 3</b>	To gain knowledge about calendar.
<b>CO – 4</b>	To study about the Moon.
<b>CO – 5</b>	To analysis the Eclipses.

<b>CO NO</b>	<b>Course Outcomes OPERATIONS RESEARCH – T3CMA7</b>
<b>CO – 1</b>	To analyze and solve linear programming models of real life situations.
<b>CO – 2</b>	To know about the relationship between the primal and dual problems.
<b>CO – 3</b>	To learn about the applications to transportation and assignment problems.
<b>CO – 4</b>	To find inventory decisions costs using deterministic inventory problems with no shortage with shortages.
<b>CO – 5</b>	To acquire knowledge about the usage of game theory and simulation for solving real life problems.

<b>CO NO</b>	<b>Course Outcomes COMPLEX ANALYSIS – T3CMA8</b>
<b>CO – 1</b>	To compute sums, products, quotients, conjugate, modulus, argument of complex numbers, and write complex numbers in polar form.
<b>CO – 2</b>	To understand and analyze the complex functions, limits and continuity, differentiability, Cauchy – Riemann equations and analyticity.
<b>CO – 3</b>	To construct the elementary transformation and bilinear transformations, define cross ratio and find fixed points of bilinear transformations.
<b>CO – 4</b>	To understand the theory and techniques of integration, use Cauchy’s integral theorem and identify the isolated singularity such as removable, poles, or essential.
<b>CO – 5</b>	To Find residues and evaluate complex integrals using the residue theorem, understand uses of improper integrals.

<b>CO NO</b>	<b>Course Outcomes STATISTICS I – T3CMA9</b>
<b>CO – 1</b>	To understanding the basic concepts of measures of central tendency and dispersion.
<b>CO – 2</b>	To define moments, skewness and kurtosis and to find a straight line.
<b>CO – 3</b>	To acquire knowledge regarding correlation and linear regression.
<b>CO – 4</b>	To learn about the concepts of interpolation and theory of attributes.
<b>CO – 5</b>	To formulate solutions and analyze the use of index numbers.

<b>CO NO</b>	<b>Course Outcomes MECHANICS – T3CMA11</b>
<b>CO – 1</b>	To understanding the concept of D-Alembert's principle and Lagrange's equation.
<b>CO – 2</b>	To demonstrate knowledge and understanding of the fundamental concept in Hamilton's principle.
<b>CO – 3</b>	To acquire knowledge on the conservation theorems and symmetry properties.
<b>CO – 4</b>	To realize importance of impact and impulsive force of a particle on a surface.
<b>CO – 5</b>	To learn the phenomenon of collision and idea about center of mass.

<b>CO NO</b>	<b>Course Outcomes ORACLE – T3EMA6</b>
<b>CO – 1</b>	To explain the features of database management systems and relational database.
<b>CO – 2</b>	To introduce the concepts of basic SQL as a universal data base language.
<b>CO – 3</b>	To analyze the existing design of a data base scheme and apply concepts of normalization to design an optimal database.
<b>CO – 4</b>	To retrieve any type of information from a data base by formulation complex queries in SQL.
<b>CO – 5</b>	To create and populate a RDBMS, using SQL.

<b>CO NO</b>	<b>Course Outcomes ORACLE LAB – T3EMAL3</b>
<b>CO – 1</b>	To design and implement a data base scheme for a given problem.
<b>CO – 2</b>	To populate and query a data base using SQL commands.
<b>CO – 3</b>	To create RDBMS with constraints and keys using SQL.
<b>CO – 4</b>	To write a program in PL/SQL including on (Data manipulation language)
<b>CO – 5</b>	To write a program in PL/SQL including DDL (Data Definition language).

<b>CO NO</b>	<b>Course Outcomes JAVA PROGRAMMING</b>
<b>CO – 1</b>	To train students for Java resolution, Java applets, rich object Environment, Oops, Object summary, Java genesis, Hello world, variables.
<b>CO – 2</b>	To analyse data types, simple types, Arrays Exception Looping.
<b>CO – 3</b>	To know about classes, string handling, construction, special string syntax, string buffer, string attached.
<b>CO – 4</b>	To explore about exception handling, Threads and single, Thread event loop, java thread model Thread runnable, File, Input stream. Understanding about streaming I/O, together URL connection.
<b>CO – 5</b>	To demonstrate about applets, Abstract window toolkit, Layout, Imaging.

<b>CO NO</b>	<b>Course Outcomes JAVA LAB</b>
<b>CO – 1</b>	To obtain knowledge about structure and model of the Java programming language.
<b>CO – 2</b>	To use the Java programming language for various programming technologies.
<b>CO – 3</b>	To develop software in the Java programming language.
<b>CO – 4</b>	To choose an engineering approach to solving problem, starting from the required knowledge of programming.
<b>CO – 5</b>	To use the certain technologies by implementing them in the Java programming language to solve the given problem.

<b>CO NO</b>	<b>Course Outcomes ANCILLARY MATHEMATICS III – T3AMA3</b>
<b>CO – 1</b>	To know about the analytic function and Cauchy Riemann equation and also its application.
<b>CO – 2</b>	To compare and contrast of the Rank Co relation co-efficient with statistics and also the Newton methods.
<b>CO – 3</b>	To know detailed study of attributes and Index numbers.
<b>CO – 4</b>	To attain more knowledge about matrices, solution of equations, and also Eigen values and Eigen vectors.
<b>CO – 5</b>	To demonstrate the understanding of the Lagrange's theorem and to study deeply about the groups and punctuation groups.

<b>CO NO</b>	<b>Course Outcomes DISCRETE MATHIMATICS – T3SMA1</b>
<b>CO – 1</b>	To enable the students to learn about the propositions logical operations and constructions of Truth Table and Equivalence and Implications and NAND and NOR.
<b>CO – 2</b>	To analysis the method of functionally complete set and Normal forms and statement calculus and Quantifiers and rule CP.
<b>CO – 3</b>	To compute the Mathematical Induction and Recursion and Iteration and Sequences and Integers.
<b>CO – 4</b>	To understand the Recurrences relations and solving linear homogeneous and non-homogeneous recurrence relation using generating function.
<b>CO – 5</b>	To demonstrate the Hasse Diagram of Partially ordered sets and lattices.

<b>CO NO</b>	<b>Course Outcomes LINEAR PROGRAMMING PROBLEM – CRMA1</b>
<b>CO – 1</b>	To define basic feasible solutions, slack and surplus variable.
<b>CO – 2</b>	To explain simplex big method and two phase method.
<b>CO – 3</b>	To prove dual of the dual in primal interpret dual simplex method.
<b>CO – 4</b>	To illustrate assignment problem and travelling salesman problem.
<b>CO – 5</b>	To define two person sum games maximin minimax principle saddle points.

<b>CO NO</b>	<b>Course Outcomes LINEAR ALGEBRA – U3CMA11</b>
<b>CO – 1</b>	To recognize the concepts of the terms span, linear independence, basis, dimensions and understand the concept of Linear transformations and matrices of linear transformations.
<b>CO – 2</b>	To understand the new terms Basis and Dimensions, define Rank and Nullity
<b>CO – 3</b>	To define the concepts of Inner Product Spaces, define Orthogonality and Orthogonal Complements.
<b>CO – 4</b>	To acquire the knowledge of a matrix, basic operations, rank and determinant of a matrix, solve a system of Linear equations and distinguish between consistent and inconsistent system of equations.
<b>CO – 5</b>	To compute with the characteristic polynomial and equations of a given square matrix familiarize characteristic roots and characteristic vectors.

<b>CO NO</b>	<b>Course Outcomes AUTOMATA THEORY – U3CMA12</b>
<b>CO – 1</b>	To learn fundamentals of regular and context free grammars and languages.
<b>CO – 2</b>	To design different types of finite automata and regular language.
<b>CO – 3</b>	To understand, design and interpret content free languages.
<b>CO – 4</b>	To design different types of push down automata as simple passed.
<b>CO – 5</b>	To compare, understand and analyze different languages, grammar, automata & convert automate to programs and functions.



<b>CO NO</b>	<b>Course Outcomes GRAPH THEORY – U3CMA13</b>
<b>CO – 1</b>	To understand the graph as models. Students gain the knowledge sub graphs, paths, cycles, spanning trees.
<b>CO – 2</b>	To explain Direct graph, types of directed graph. Students gain knowledge about Euler diagraph, fundamental circuits in diagraph.
<b>CO – 3</b>	To understand the concepts of enumeration types of enumeration. Theorems using for enumeration.
<b>CO – 4</b>	To gain the knowledge of contact network, analysis and synthesis of contact network.
<b>CO – 5</b>	To apply the concept of Directed graph in networking problem of operation Research

<b>CO NO</b>	<b>Course Outcomes STATISTICS II – U3CMA14</b>
<b>CO – 1</b>	To understand distribution in the study of the joint behaviour of two random variables.
<b>CO – 2</b>	To understand the basic concepts of probability and to know the various discrete and continuous distributions.
<b>CO – 3</b>	To solve the problems of large and small samples.
<b>CO – 4</b>	To acquire knowledge about test of hypothesis and associated concepts.
<b>CO – 5</b>	To concepts the analysis of variance, one way and two way classifications, latin square design.

<b>CO NO</b>	<b>Course Outcomes NUMERICAL ANALYSIS – U3CMA15</b>
<b>CO – 1</b>	To solve a system of linear equations.
<b>CO – 2</b>	To apply all branches of engineering.
<b>CO – 3</b>	To know how to find the roots of transcendental equations.
<b>CO – 4</b>	To learn how to interpolate the given set of values.
<b>CO – 5</b>	To learn numerical solution of differential equations.

<b>CO NO</b>	<b>Course Outcomes ANCILLARY MATHEMATICS IV – U3AMA4</b>
<b>CO – 1</b>	To explain the concept of LPP and some classes of LPP.
<b>CO – 2</b>	To obtain the primal and dual of LPP.
<b>CO – 3</b>	To examine the balanced and unbalanced assignment problem.
<b>CO – 4</b>	To determine the feasible solution, IBFS, Optimal solution of transportation problem.
<b>CO – 5</b>	To understand some basic concepts of game theory with saddle point and without saddle point.

<b>CO NO</b>	<b>Course Outcomes INTEGRAL TRANSFORMS – U3SMA1</b>
<b>CO – 1</b>	To make the students familiar with Integral Transforms in fourier transforms and alternative form of fourier complex integral formula and Laplace transform.
<b>CO – 2</b>	To provide the students with the basic knowledge of finite fourier transforms and properties of fourier transforms.
<b>CO – 3</b>	To acquire the knowledge of Laplace transform of Derivatives and integrals and final value theorem.
<b>CO – 4</b>	To analyse the problems of convolution and solution of differential and integral equations.
<b>CO – 5</b>	To understand the students to properties of Z-transforms and Z-transforms of some basic functions.

<b>CO NO</b>	<b>Course Outcomes RESOURCE MANAGEMENT TECHNIQUE – CRMA2</b>
<b>CO – 1</b>	To define nature and feature of OR analyze and solve linear programming models of real life situations.
<b>CO – 2</b>	To provide graphical solutions of LPP with two variables, and illustrate the concept of convex set and extreme points.
<b>CO – 3</b>	To understand the theory of the Simplex method.
<b>CO – 4</b>	To know about the relationships between the primal and dual problems, and to understand sensitivity analysis.
<b>CO – 5</b>	To learn about the applications to transportation, assignment and two person zero sum game problems.

## M.Sc MATHEMATICS - SPMA

PO NO	Programme Outcomes
PO – 1	To describe concept of mathematics both in pure and applied way.
PO – 2	To attain ability to spot, formulate and solve the critical problems.
PO – 3	To encourage the students for passing research in mathematics and other relevant fields.
PO – 4	To train problem solving skills for the students.
PO – 5	To stimulate the confidence of self learning.

PSO NO	Programme Specific Outcomes
PSO – 1	To encourage the students to do research in mathematics and other relevant field.
PSO – 2	To acquire knowledge of great circle in differential geometry which can be used in navigation.
PSO – 3	To understand the various concept of fuzzy mathematics and gain knowledge of applying them in Civil engineering, Computer engineering, Robotics, Medicine and Reliability theory.
PSO – 4	To motivate and help the students for competitive examinations like SET, NET etc.
PSO – 5	To use the mathematical knowledge for solving the real life problems.

CO NO	Course Outcomes ALGEBRA - I – P6CMA1
CO – 1	To understand the elementary properties of a group and to know about the centre of a group G and Cauchy theorem.
CO – 2	To attain knowledge about direct products and internal direct product. It also used to know about the finite abelian groups and its properties.
CO – 3	To get knowledge about the basic properties of rings and also to know about the Euclidean rings and its association.
CO – 4	To acquire knowledge about the polynomial rings, polynomial over the rational field and commutative rings and also to know about the modulus, sub modules and cyclic modules.
CO – 5	To carry out the facts of a solvable groups, subnormal, normal and composition series. And also to know deeply about the Schreier's refinement theorem, Butterfly theorem, Jordan – Holder theorem.

<b>CO NO</b>	<b>Course Outcomes MECHANICS – P6CMA4</b>
<b>CO – 1</b>	To learn D'Alemberts principle and lagrange's equations.
<b>CO – 2</b>	To understand about the applications of lagrangian formulation.
<b>CO – 3</b>	To learn about conservation theorems and symmetry properties.
<b>CO – 4</b>	To acquire knowledge about the differential equation for the orbit and integral power.
<b>CO – 5</b>	To obtain knowledge about the kepler problem.

<b>CO NO</b>	<b>Course Outcomes REAL ANALYSIS - I – P6CMA5</b>
<b>CO – 1</b>	To demonstrate the concepts of real numbers, Euclidean spaces, count ability and Metric spaces.
<b>CO – 2</b>	To understand compact, perfect sets and connected sets.
<b>CO – 3</b>	To differentiate convergent and divergent sequence, and identify Cauchy sequence.
<b>CO – 4</b>	To describe series, the set test, the ratio test, and the comparison test and apply these test to solve the problems.
<b>CO – 5</b>	To understand what is a continuous function, and can differentiate continuity and uniform continuity and use theorems to solve various problems.

<b>CO NO</b>	<b>Course Outcomes DIFFERENTIAL EQUATIONS – P6CMA3</b>
<b>CO – 1</b>	To understand an ordinary differential equations and solve them.
<b>CO – 2</b>	To comprehend the Euler equations and Regular Singular points.
<b>CO – 3</b>	To understand the Bessel equation and Exact equation.
<b>CO – 4</b>	To understand the concept of successive approximations and Lipschitz condition.
<b>CO – 5</b>	To understand towards the origin of first order partial differential equation, non linear partial differential equations and solving them using Charpit's method.

<b>CO NO</b>	<b>Course Outcomes DIFFERENTIAL GEOMETRY – P6EMA1</b>
<b>CO – 1</b>	To interpret the various ideas, about space curves plane curves and surfaces.
<b>CO – 2</b>	To know about the knowledge of first fundamental forms and family of curves.
<b>CO – 3</b>	To learn about the properties of geodesies.
<b>CO – 4</b>	To discuss the concepts of Gaussian curvature and conformal mapping.
<b>CO – 5</b>	To gain knowledge about Liouville’s formula for Geodesic curvature.

<b>CO NO</b>	<b>Course Outcomes AUTOMATA THEORY AND FORMAL LANGUAGE</b>
<b>CO – 1</b>	To learn about the fundamental understanding of the central concepts of Automata Theory. Students gain the knowledge about the formal proof, Addition forms of proof and inductive proofs.
<b>CO – 2</b>	To acquire knowledge about finite automata, Deterministic finite automata and Non-Deterministic finite automata and finite automata with epsilon transitions.
<b>CO – 3</b>	To describe about Regular expressions, finite automata and regular expressions. Describe the applications of Regular expression and Algebraic laws of expression.
<b>CO – 4</b>	To proving the languages are not regular determine closure properties of regular language decision properties of regular languages. Describe the equivalent and minimization of automata.
<b>CO – 5</b>	To acquire knowledge about the concepts of context free grammar application of correct free grammar. Define pushdown Automata, language of PDA. Describe about equivalence of PDA’s and CFG’s and deterministic PDA.

<b>CO NO</b>	<b>Course Outcomes MODERN APPLIED ALGEBRA</b>
<b>CO – 1</b>	To carry out the facts of Binary devices and states; and state machines, Turing machines, Incompletely Specified machines.
<b>CO – 2</b>	To attain more knowledge about Arithmetic expression, identifiers, Block structures in ALGOL.
<b>CO – 3</b>	To get more details about Boolean Polynomials, Boolean sub algebra and its applications.

<b>CO – 4</b>	To know more knowledge about the optimization computerizing optimization, Logic design and also it was useful to know about the NAND gates and NOT gates.
<b>CO – 5</b>	To attain more knowledge about the encoding and decoding; Block codes; matrix encoding techniques, Group codes, decoding tables, Hamming codes.

<b>CO NO</b>	<b>Course Outcomes ALGEBRA -II – Q6CMA5</b>
<b>CO – 1</b>	To acquire deep knowledge in vector space and linear transformation.
<b>CO – 2</b>	To learn about characteristic roots and characteristic vectors.
<b>CO – 3</b>	To understand the canonical and triangular form.
<b>CO – 4</b>	To obtain knowledge about Jordan forms.
<b>CO – 5</b>	To learn about trace and transpose of a matrix.

<b>CO NO</b>	<b>Course Outcomes TOPOLOGY – Q6CMA6</b>
<b>CO – 1</b>	To work easily with Basis for a topology, the order topology, the product topology and the subspace topology.
<b>CO – 2</b>	To increase the knowledge regarding Connectedness and its applications.
<b>CO – 3</b>	To understand the concepts of Compactness and limit point compactness.
<b>CO – 4</b>	To acquire knowledge of Countability axioms, the Separation axioms and Normal spaces.
<b>CO – 5</b>	To understand the classical theorems such as, the Uryshon’s lemma, the Tietze Extension and Tychonoff theorem.

<b>CO NO</b>	<b>Course Outcomes REAL ANALYSIS II – Q6CMA9</b>
<b>CO – 1</b>	To understand differentiability; mean value theorems, L Hospital’s rule and solve using them.
<b>CO – 2</b>	To describe integration and differentiate between Riemann Integral and Riemann- Stieltjes integral, and understand the properties of the integral. And understand differentiation and integration as inverse operations.

<b>CO – 3</b>	To demonstrate point wise and uniform convergence of functions.
<b>CO – 4</b>	To understand uniform convergence and integration; uniform convergence and differentiation; and the stone-weierstrass theorem.
<b>CO – 5</b>	To gain knowledge of power series, the exponential and Logarithmic functions, the Trigonometric function and its properties.

<b>CO NO</b>	<b>Course Outcomes GRAPH THEORY – Q6CMA10</b>
<b>CO – 1</b>	To know about the basic concepts of graphs such as degree of the vertex, isolated vertex, pendent vertex, homomorphism. Students also learn about types of graphs and also understand the concepts of walk, path, circuit, component students gain knowledge about Euler graphs, Hamiltonian path and circuit.
<b>CO – 2</b>	To understand the concept of Trees, some properties of trees and circuits. They also gain the knowledge about rooted and binary trees, spanning trees and fundamental circuits. Students learn about results for finding all spanning trees of a graph and also in weighted graph.
<b>CO – 3</b>	To understand the concept of directed graph, some types of directed graphs and their binary relation. They also learn the same concepts of undirected graphs such as path, connected. Trees Euler graph and fundamental circuit is directed graph. Students also understand concept of matrices of a digraph, paired comparison and tournaments. They also learn about acyclic graph and decyclization.
<b>CO – 4</b>	To understand the concept of Enumeration of graph and types of enumeration. Students are also learn about enumeration of labeled and unlabelled trees. They also learn about enumeration using Polya's theorem.
<b>CO – 5</b>	To gain the knowledge to apply graph concept in operation research by defining Transport network and results on it students also learn about extension of max-min cut theorem, minimal cost flows and multi commodity flow.

<b>CO NO</b>	<b>Course Outcomes OPERATIONS RESEARCH – Q6EMA4</b>
<b>CO – 1</b>	To develop linear programming models for network, minimal spanning tree, maximal flow, shortest route problems.
<b>CO – 2</b>	To use CPM and PERT techniques, to plan, schedule, and control project activities.
<b>CO – 3</b>	To comprehend several queueing system models, such as single server models and multi server models.
<b>CO – 4</b>	To understand the ideas of classical optimization problems.
<b>CO – 5</b>	To use some solution methods for solving the nonlinear programming models.

<b>CO NO</b>	<b>Course Outcomes COMBINATIONAL MATHEMATICS</b>
<b>CO – 1</b>	To know more details about the Distribution of distinct and non-distinct objects.
<b>CO – 2</b>	To get vast knowledge about the linear recurrence relations with constant coefficients, and also elementary relations.
<b>CO – 3</b>	To know deeply about the principles of inclusion and exclusion.
<b>CO – 4</b>	To understand clearly about the Polya’s fundamental theorem and also generalization of Polya’s theorem.
<b>CO – 5</b>	To get knowledge about the connectedness of a graph, Euler path, Hamiltonian path.

<b>CO NO</b>	<b>Course Outcomes VISUAL BASIC WITH PRACTICALS</b>
<b>CO – 1</b>	To explain the basic concepts of program building block control statements.
<b>CO – 2</b>	To master the basic concepts of Intrinsic controls and projects in VB.
<b>CO – 3</b>	To demonstrate understanding of and concept about data types, constants, and variables.
<b>CO – 4</b>	To learn to use the conditional statement loops, Arrays, Strings and type casting.
<b>CO – 5</b>	To create different types of means dialog boxes and enhancement of programs and Graphics.



<b>CO NO</b>	<b>Course Outcomes ALGEBRA - III – R6CMA9</b>
<b>CO – 1</b>	To understand the field extension, algebraic extension and transcendence of e.
<b>CO – 2</b>	To gain the knowledge of roots of the polynomial spitting field irreducible polynomial.
<b>CO – 3</b>	To develop the knowledge more about roots, multiple roots. To understand the characteristics of a field.
<b>CO – 4</b>	To understand the concepts of solver by radicals, galios group over rationals.
<b>CO – 5</b>	To acquire the knowledge about the finite field, splitting field of a polynomial and theorems on finite division rings.

<b>CO NO</b>	<b>Course Outcomes STATISTICS – R6CMA10</b>
<b>CO – 1</b>	To comprehend some special mathematical expectations and Chebyshev’s inequality.
<b>CO – 2</b>	To study marginal and conditional distribution the correlation coefficient and stochastic independence.
<b>CO – 3</b>	To apply the Trinomial, Multinomial, Poisson, Gamma and Chi-square distributions to solve problems.
<b>CO – 4</b>	To study the concept of transformations of variables of the discrete and continuous random variable, the Beta, t, and F distributions and their applications.
<b>CO – 5</b>	To understand convergence in distribution, convergence in probability and the central limit theorem.

<b>CO NO</b>	<b>Course Outcomes COMPLEX ANALYSIS – R6CMA11</b>
<b>CO – 1</b>	To represent complex numbers algebraically and geometrically, analyze limit, continuity and differentiation of functions of complex variables and understand Cauchy-Riemann equations, and analytic functions.
<b>CO – 2</b>	To understand conformal mapping and Linear transformation.
<b>CO – 3</b>	To understand Cauchy theorem and Cauchy Integral Formulas and apply these to evaluate complex counter Integrals.

<b>CO – 4</b>	To classify singularities and poles, find residue and evaluate complex Integrals using the residue theorem.
<b>CO – 5</b>	To represent function as Taylor and Laurent series.

<b>CO NO</b>	<b>Course Outcomes FUZZY MATHEMATICS – R6CMA12</b>
<b>CO – 1</b>	To learn crisp and fuzzy set theory.
<b>CO – 2</b>	To recognize fuzzy logic member ship function.
<b>CO – 3</b>	To decide the difference between crisp and fuzzy set theory.
<b>CO – 4</b>	To make applications on fuzzy logic membership function and fuzzy inference systems.
<b>CO – 5</b>	To evaluate fuzzy statistics applications.

<b>CO NO</b>	<b>Course Outcomes NUMERICAL METHODS – R6EMA8</b>
<b>CO – 1</b>	To obtain the solutions of transcendental and polynomial equations.
<b>CO – 2</b>	To solve by direct methods and iteration methods for solving system of equations.
<b>CO – 3</b>	To apply Hermite Interpolation, piecewise and spline Interpolation.
<b>CO – 4</b>	To solve problems using interpolation.
<b>CO – 5</b>	To solve ordinary differential equations using numerical methods.

<b>CO NO</b>	<b>Course Outcomes MEASURE THEORY – S6CMA17</b>
<b>CO – 1</b>	To gain knowledge of Lebesgue outer measure, Measurable sets, Measurable functions, Borel Measurability and its properties. And approximate measurable functions and compute Lebesgue measure.
<b>CO – 2</b>	To describe Hausdorff measure on the real line and compute it. Find the integration of non-negative functions.

<b>CO – 3</b>	To understand and compute Lebesgue's and Riemann Integration. And describe functions of Bounded variation.
<b>CO – 4</b>	To gain knowledge of Lebesgue's Differentiation theorem, connection between differentiation and integration in Lebesgue theory.
<b>CO – 5</b>	To learn Extension of a measure and its uniqueness Measure spaces.

<b>CO NO</b>	<b>Course Outcomes FUNCTIONAL ANALYSIS – S6CMA14</b>
<b>CO – 1</b>	To define Inner product spaces and Hilbert spaces.
<b>CO – 2</b>	To construct orthonormal sets and conjugate spaces.
<b>CO – 3</b>	To understand the relevance of self-adjoint operators, normal, unitary operators and projection.
<b>CO – 4</b>	To distinguish between finite and infinite dimensional spaces.
<b>CO – 5</b>	To equip the students to use determinants of spectrum and the spectral values of an operator H.

<b>CO NO</b>	<b>Course Outcomes NUMBER THEORY – S6CMA15</b>
<b>CO – 1</b>	To understand the concepts of divisibility and primes.
<b>CO – 2</b>	To comprehend the Mobius inversion formula, the Mangoldt function and Euler Summation Formula.
<b>CO – 3</b>	To understand Elementary asymptotic formula and Elementary theorems on Distribution of Prime Numbers.
<b>CO – 4</b>	To solve congruences problem.
<b>CO – 5</b>	To discuss Quadratic residue and quadratic reciprocity law.

<b>CO NO</b>	<b>Course Outcomes CALCULUS OF VARIATIONS AND LINEAR INTEGRAL EQUATIONS – S6CMA18</b>
<b>CO – 1</b>	To understand the types of integral equation and types of Kernal, Leibnitz's rule. And convert differential to Integral equations and vice versa. And solve problem in initial and boundary value problem.

<b>CO – 2</b>	To find the solution of Homogeneous Fredholm Integral equation and Volterra integral equations by successive substitution and successive approximation method.
<b>CO – 3</b>	To find the solution of Volterra's integral Fredholm Integral equation, reduce Volterra integral equation into differential equation and reduce Volterra integral equation of first kind to second kind.
<b>CO – 4</b>	To describe Functionals, Euler's equation and solve problems using it.
<b>CO – 5</b>	To describe sufficient conditions for Extremals and solve

<b>CO NO</b>	<b>Course Outcomes STOCHASTIC PROCESSES – S6CMA10</b>
<b>CO – 1</b>	To gain the knowledge about stochastic process, specification of stochastic process and stationary process.
<b>CO – 2</b>	To get the knowledge about Generalisation of independent Bernoulli traits- Markov chains classification of states and chains gain the knowledge about the Higher Transition Probability.
<b>CO – 3</b>	To understand the concept about poisson process and related distributions. Students are able to understand the explanation about generalisations of Birth death process.
<b>CO – 4</b>	To gain the knowledge about Renewal process and Renewal process in continuous time.
<b>CO – 5</b>	To gain the knowledge about stopping time, Wald's equations and Renewal theorem.

# DEPARTMENT OF MICRO BIOLOGY

## B.Sc MICRO BIOLOGY - SUMI

PO NO	Programme Outcomes
PO – 1	To gain knowledge about microbial world
PO – 2	To provide in depth knowledge about basic principles of bacteriology, virology, mycology, immunology and parasitological including the nature of pathogenic microorganism pathogenesis, laboratory diagnosis, transmission, prevention & control of diseases.
PO – 3	The students will also acquire knowledge in laboratory safety & microbiological skills applicable to clinical research.
PO – 4	Students develop the skill to think independently, plan research & execute in the fields of microbiology especially food microbiology, industrial microbiology, agriculture microbiology.
PO – 5	Explore the new area of research in all the branches of microbiology, biotechnology, bioinformatics, biochemistry, in addition to inter-disciplinary field such as biology, chemistry

PSO NO	Programme Specific Outcomes
PSO – 1	Gain the knowledge of microbiology through theory & practical.
PSO – 2	Study & understand bio molecules & their interactions.
PSO – 3	Understand the DNA recombinant technology.
PSO – 4	They should have the appropriate skills of microbiology so as to perform their duties as microbiologists.
PSO – 5	The students graduating in microbiology should also develop excellent communication skills both in the written as well as spoken language which are must for them to pursue higher studies from some of the best and internationally acclaimed universities & research institutions spread across the globe.

<b>CO NO</b>	<b>Course Outcomes GENERAL MICROBIOLOGY – P3CMB3</b>
<b>CO – 1</b>	Illustrate the different types of microscopy.
<b>CO – 2</b>	Explain the structure & function of Prokaryotic & Eukaryotic cell.
<b>CO – 3</b>	Outline the history & scope of microbiology.
<b>CO – 4</b>	Identify the factors influencing the growth of microbes.
<b>CO – 5</b>	Design the various sterilization & microscopy techniques.
<b>CO – 6</b>	Develop the knowledge in modern development in microbiology.
<b>CO – 7</b>	Discuss the microbial taxonomy

<b>CO NO</b>	<b>Course Outcomes MICROBIAL PHYSIOLOGY AND METABOLISM – Q3CMB4</b>
<b>CO – 1</b>	Classify the microorganisms based on nutritional requirements.
<b>CO – 2</b>	Evaluate the Biosynthetic pathway
<b>CO – 3</b>	Elaborate the metabolic photosynthesis & respiration processes.
<b>CO – 4</b>	Examine the mechanism of photosynthesis.
<b>CO – 5</b>	Determine the microbial growth
<b>CO – 6</b>	Discuss the microbial diversity
<b>CO – 7</b>	Identify the factors influencing the growth of microbes

<b>CO NO</b>	<b>Course Outcomes PRACTICAL I –LAB IN TECHNIQUES – Q3CMBL2</b>
<b>CO – 1</b>	Find the microbes using different event microscopic methods.
<b>CO – 2</b>	Illustrate and use of microscopic equipment's.
<b>CO – 3</b>	Develop the knowledge on culturing the microorganisms.
<b>CO – 4</b>	Appraise the pure culture techniques.
<b>CO – 5</b>	Find the microbes using different staining methods.
<b>CO – 6</b>	Prove the metabolic activities using various biochemical experiments
<b>CO – 7</b>	Evaluate the measurement of growth of microorganisms.

<b>CO NO</b>	<b>Course Outcomes MOLECULAR BIOLOGY AND MICROBIAL GENETICS – R3CMB4</b>
<b>CO – 1</b>	Attain knowledge about the basics in structure of Nucleic acid
<b>CO – 2</b>	Learn about the organization of genetic materials in organisms.
<b>CO – 3</b>	Study about the various types of cloning vectors used in genetic engineering.
<b>CO – 4</b>	Know about the mechanisms DNA replication, transcription, and translation processes in organisms.
<b>CO – 5</b>	Gain knowledge in the mechanisms of gene expression and its regulation in organisms.
<b>CO – 6</b>	Achieve knowledge about the mutations and DNA repair mechanisms in organisms.
<b>CO – 7</b>	Realize knowledge about the transposable elements types of plasmids and its applications.

<b>CO NO</b>	<b>Course Outcomes PRACTICAL II – LAB IN MOLECULAR BIOLOGY &amp; MICROBIAL GENETICS – R3CMBL4</b>
<b>CO – 1</b>	Demonstrate the fundamental molecular techniques
<b>CO – 2</b>	Discuss the isolation of mutation.
<b>CO – 3</b>	Demonstrate the DNA isolation methods
<b>CO – 4</b>	Analyze the determination of lactose
<b>CO – 5</b>	Demonstrate the RNA isolation methods
<b>CO – 6</b>	Discuss the replica plating technique for mutant selection
<b>CO – 7</b>	Demonstrate the definition of inducible, repressible state

<b>CO NO</b>	<b>Course Outcomes INDUSTRIAL MICROBIOLOGY-I – S3CMB5</b>
<b>CO – 1</b>	Understand and describe scope of industrial microbiology
<b>CO – 2</b>	Understand and operate fermenters in various industries
<b>CO – 3</b>	Explain the methods of screening, strain improvement and preservation of production strains
<b>CO – 4</b>	Analyze the source, components, importance and sterilization of fermentation media
<b>CO – 5</b>	Demonstrate the basic design of a fermenter and its types
<b>CO – 6</b>	Understand and Computer Application in fermentation process
<b>CO – 7</b>	Discuss the steps in downstream processing and assess the nature and utility of various fermented products
<b>CO – 8</b>	Understating and Aerobic, Anaerobic fermentation process



<b>CO NO</b>	<b>Course Outcomes PRACTICAL III– LAB IN INDUSTRIAL MICROBIOLOGY – S3CMBL5</b>
<b>CO – 1</b>	Students will able to technical skills.
<b>CO – 2</b>	Construct the fermentable product.
<b>CO – 3</b>	Demonstrate & develop the operation techniques.
<b>CO – 4</b>	Demonstrate a knowledge of screening of microorganisms from soil.
<b>CO – 5</b>	To know about the screening of cyanobacteria from paddy field
<b>CO – 6</b>	Assess the immobilization of yeast cells.
<b>CO – 7</b>	Develop a skills organic acid producing microorganism from soil.

<b>CO NO</b>	<b>Course Outcomes MEDICAL MICROBIOLOGY – T3CMB10</b>
<b>CO – 1</b>	Understand and explain the stages of infection diseases
<b>CO – 2</b>	Describe various modes by which infections spread in community
<b>CO – 3</b>	Describe various methods that can be adopted to control spread of infection in community
<b>CO – 4</b>	Understand and explain various hospital borne, air borne and water-borne diseases
<b>CO – 5</b>	Understand how to educate the people about taking care of health
<b>CO – 6</b>	Understand the role of drugs in disease control
<b>CO – 7</b>	Identify diseases caused by fungi

<b>CO NO</b>	<b>Course Outcomes BASIC TO BIOINFORMATICS – T3CMB11</b>
<b>CO – 1</b>	Explain the history of bioinformatics
<b>CO – 2</b>	Outline computational tools of bioinformatics
<b>CO – 3</b>	Compare DNA,RNA and protein sequence for analytical studies
<b>CO – 4</b>	Assess phylogenetic methods
<b>CO – 5</b>	Identify new research fields in biology
<b>CO – 6</b>	Basic algorithms used in pair wise and multiple alignment
<b>CO – 7</b>	Application of probabilistic model to determine important patterns
<b>CO --8</b>	Prediction of structure from sequence and subsequently testing the accuracy of predicted structures.

<b>CO NO</b>	<b>Course Outcomes PRINCIPLES OF IMMUNOLOGY – T3CMB12</b>
<b>CO – 1</b>	Understand and describe human body's resistance mechanism against disease
<b>CO – 2</b>	Understand and write the role of human body's various organs in natural resistance.
<b>CO – 3</b>	Know how MHC functions in the immune system
<b>CO – 4</b>	Differentiate the humoral and cell mediated immune mechanisms.
<b>CO – 5</b>	Describe and explain the reasons, classes and development of allergy in humans
<b>CO – 6</b>	Apply antigen antibody reaction for diagnosis of disease .
<b>CO – 7</b>	Interpret the mechanism involved in humoral & cell mediated immunity

<b>CO NO</b>	<b>Course Outcomes BIOCHEMISTRY – T3CMB13</b>
<b>CO – 1</b>	Discuss the structure ,Properties and function of carbohydrates
<b>CO – 2</b>	Explain the general structure, Properties and Classification of protein
<b>CO – 3</b>	Analyze the structure, Properties and classification and function of lipids.
<b>CO – 4</b>	Assess the classification, properties and biological functions of enzymes and Vitamins.
<b>CO – 5</b>	Elaborate the classification & properties of biomolecules.
<b>CO – 6</b>	Analyze the bio synthetic pathway of hormones.
<b>CO – 7</b>	Classify the enzymes on the basis of their properties & application

<b>CO NO</b>	<b>Course Outcomes LAB IV – LAB IN MEDICAL MICROBIOLOGY AND IMMUNOLOGY – T3CMBL8</b>
<b>CO – 1</b>	Analyze the symptoms, pathogenesis &laboratory diagnosis of bacterial diseases.
<b>CO – 2</b>	Develop the knowledge on blood laboratory
<b>CO – 3</b>	Illustrate the composition & functions of blood.
<b>CO – 4</b>	Obtain knowledge on culture of different microbes
<b>CO – 5</b>	Learn the culturing techniques
<b>CO – 6</b>	Outline the pioneers of microbiological research
<b>CO – 7</b>	Discuss the need of description of HIV structure

<b>CO NO</b>	<b>Course Outcomes LAB V– LAB IN BIOCHEMISTRY AND BIOINFORMATICS – T3CMBL9</b>
<b>CO – 1</b>	Demonstrate and tris buffer and phosphate buffer
<b>CO – 2</b>	Analyze the biochemical characterization of microorganism
<b>CO – 3</b>	Demonstrate and chromatography techniques
<b>CO – 4</b>	Demonstrate and purification of membrane lipids
<b>CO – 5</b>	Able to apply design principles to develop web based applications specially for biological data analysis
<b>CO – 6</b>	To understand on working world wide web through implementation
<b>CO – 7</b>	Able to design new web pages web sites
<b>CO --8</b>	Able to developed programs to describe and analyze problems in biology

<b>CO NO</b>	<b>Course Outcomes MICROBIAL BIOTECHNOLOGY – U3CMB16</b>
<b>CO – 1</b>	Understand the tools and techniques of genetic engineering
<b>CO – 2</b>	Understand and describe DNA, fingerprinting and its application in forensic science
<b>CO – 3</b>	Understand the methods of production of health related compounds by biotechnology
<b>CO – 4</b>	Understand and write application of biotechnology in agriculture
<b>CO – 5</b>	Explain and describe the advantages /disadvantages of genetic engineering for humans
<b>CO – 6</b>	Understand the production and importance of genetically modified food
<b>CO – 7</b>	Asses the importance of plasmid & their types

<b>CO NO</b>	<b>Course Outcomes ENVIRONMENTAL AND AGRICULTURAL MICROBIOLOGY – U3CMB18</b>
<b>CO – 1</b>	Gain knowledge about the role and importance of soil microbes
<b>CO – 2</b>	Learn about the impact of the soil microbes for plants growth
<b>CO – 3</b>	Acquire knowledge on the symbiotic, free living association of Nitrogen fixation.
<b>CO – 4</b>	Learn importance and the need of Nitrogen fixation process by microbes
<b>CO – 5</b>	Become skilled in mass production and applications of biofertilizer
<b>CO – 6</b>	Gain knowledge of bacterial, fungal, and viral biopesticides
<b>CO – 7</b>	Attain knowledge in plants and microbial interactions
<b>CO – 8</b>	Learn the disease management in crops
<b>CO – 9</b>	Achieve information and importance of biogeochemical cycles in environmental

<b>CO NO</b>	<b>Course Outcomes FOOD AND DAIRY MICROBIOLOGY – U3CMB17</b>
<b>CO – 1</b>	Explain the food as a substrate.
<b>CO – 2</b>	Apply the preservation methods.
<b>CO – 3</b>	Evaluate the microbiology of fermented milk products
<b>CO – 4</b>	Analyse the pathogenicity of various food borne illness
<b>CO – 5</b>	Discuss the role of microbes in fermented products.
<b>CO – 6</b>	Are able to identify the role of microorganisms in the causative of the diseases & how to protect against food borne pathogens
<b>CO – 7</b>	Discuss the government regulatory practices & policies In food safety.

<b>CO NO</b>	<b>Course Outcomes INDUSTRIAL MICROBIOLOGY II – U3CMB19</b>
<b>CO – 1</b>	Understand and describe Microbial growth kinetics different phases
<b>CO – 2</b>	Understand and commercial process
<b>CO – 3</b>	Explain the process of commercial production and Organic acids, Vitamin B12 Penicillin etc
<b>CO – 4</b>	Perform the methods and harvesting and product recovery in industrial fermentations
<b>CO – 5</b>	Work out the maintenance of fermentor or plant
<b>CO – 6</b>	Understand and various methods used for fermentation process
<b>CO – 7</b>	Understand and explain the principles, methodology and application of various bioinstruments like spectrometer, HPLC, Chromatography, Centrifuge etc.,
<b>CO --8</b>	Understand and describe Purification and Precipitation, drying, process

<b>CO NO</b>	<b>Course Outcomes MEDICAL LABORATORY TECHNIQUES – U3CMB20</b>
<b>CO – 1</b>	Explain the basic principles of medical laboratory work.
<b>CO – 2</b>	Identify the unique properties of haematology.
<b>CO – 3</b>	Analyze the methods of various collection, preservation & testing of urinary samples.
<b>CO – 4</b>	Analyse the steps for tissue processing
<b>CO – 5</b>	Define the principles of microtome
<b>CO – 6</b>	Summarize the components & properties of staining
<b>CO – 7</b>	Demonstrate the fundamentals techniques in clinical samples

<b>CO NO</b>	<b>Course Outcomes LAB IN FOOD AND DAIRY, AGRICULTURE&amp;ENVIRONMENTAL MICROBIOLOGY – U3CMBL10</b>
<b>CO – 1</b>	Analyze the microbial contaminants found in the food products
<b>CO – 2</b>	Identify and characterize specific organisms found in spoiled food
<b>CO – 3</b>	Apply the techniques to grade food products
<b>CO – 4</b>	Demonstrate the production of fermented food products
<b>CO – 5</b>	Plan visits to food industries
<b>CO – 6</b>	Identify beneficial organism from different ecosystem
<b>CO – 7</b>	Utilize their skill based techniques in agriculture field
<b>CO --8</b>	Compare the importance of bio fertilizers
<b>CO --9</b>	Rate new techniques for the betterment of the environment
<b>CO -10</b>	Design experiements to study various environment

<b>CO NO</b>	<b>Course Outcomes LAB IN MEDICAL LAB TECHNIQUES, MICROBIAL BIOTECHNOLOGY&amp;INDUSTRIAL MICROBIOLOGY – U3CMBL11</b>
<b>CO – 1</b>	Evaluate and analyze various clinical samples
<b>CO – 2</b>	Demonstrate basic haematology
<b>CO – 3</b>	Apply the biochemical tests to analyze serum and urine samples
<b>CO – 4</b>	Analyze pus and stool samples
<b>CO – 5</b>	Plan visits to different medical laboratories
<b>CO – 6</b>	Perform isolation of genomic DNA and plasmids from bacteria
<b>CO – 7</b>	Demonstrate SDS-PAGE and silver staining of proteins
<b>CO --8</b>	Demonstrate wine and Beer production

<b>CO NO</b>	<b>Course Outcomes PLANT TISSUE CULTURE – R3SMB1</b>
<b>CO – 1</b>	Outline the requirements and techniques of plant tissue culture
<b>CO – 2</b>	Explain the micro propagation and <i>invitro</i> conservation process
<b>CO – 3</b>	Discuss concepts of plant cell culture and types of media
<b>CO – 4</b>	Demonstrate the techniques of primary explantations, monolayer culturing ,and cell line characterization
<b>CO – 5</b>	Assess the application of plant cell culture
<b>CO – 6</b>	Assess the viability of the cultured cells
<b>CO – 7</b>	Perform culturing of callus, shoot and root
<b>CO --8</b>	Demonstration primary explants culture and cell culture preparation

<b>CO NO</b>	<b>Course Outcomes PROTEOMICS AND PROTEIN ENGINEERING – S3SMB2</b>
<b>CO – 1</b>	Analyse the concepts& scope of proteomics study.
<b>CO – 2</b>	Evaluate the proteomics tools in protein study.
<b>CO – 3</b>	Elaborate the application of genomics & proteomics.
<b>CO – 4</b>	Explain the genome analysis of various organisms
<b>CO – 5</b>	Apply the genome tools in genome analysis
<b>CO – 6</b>	Demonstrate the tools involved in proteomics
<b>CO – 7</b>	Adapt the proteomics & genomics in therapeutics



<b>CO NO</b>	<b>Course Outcomes GENETIC ENGINEERING – T3SMB3</b>
<b>CO – 1</b>	Explain the mechanisms of action of restriction endonucleases and DNA modifying enzymes
<b>CO – 2</b>	Discuss the biology of cloning and expression vectors and their methods of gene transfer into bacteria, plants and animals.
<b>CO – 3</b>	Evaluate the cloning strategies of genomic library and CDNA construction, PCR, blotting techniques and DNA sequencing
<b>CO – 4</b>	Compare the various methods of selection and screening of recombinants
<b>CO – 5</b>	Assess the various applications of genetic engineering
<b>CO – 6</b>	Understand and production and importance of GMO food
<b>CO – 7</b>	Understand the tools and techniques of genetic engineering
<b>CO --8</b>	Understand describe DNA and RNA, finger printing and its application in forensic science

<b>CO NO</b>	<b>Course Outcomes AQUACULTURE – U3SMB3</b>
<b>CO – 1</b>	Describe the different types of aquaculture systems
<b>CO – 2</b>	Understand conditioning factors and how they can be manipulated
<b>CO – 3</b>	Describe water depuration mechanisms
<b>CO – 4</b>	Describe basic culture methodologies, common problems and solution of important species.
<b>CO – 5</b>	Macro algae, micro algae, Zooplankton(Artemia, rotifers, copepods)
<b>CO – 6</b>	Molluscs (Gastropods,Bivalves )
<b>CO – 7</b>	Fish Reptiles(turtles, alligators) coral

<b>CO NO</b>	<b>Course Outcomes MUSHROOM CULTIVATION – R4NMB1 (NME)</b>
<b>CO – 1</b>	Describe the mushrooms are the macro fungi with distinctive fruiting body in white button mushrooms, oyster mushrooms and many others.
<b>CO – 2</b>	Explain the commercial cultivation of a number of mushrooms are being done in the world for their use as nutritious food and the medicine
<b>CO – 3</b>	Demonstrate the cultivation techniques and also about aspects related to mushroom culture
<b>CO – 4</b>	knows how different management methods of forests are influencing wild berry crops
<b>CO – 5</b>	knows most important non-wood forest products;
<b>CO – 6</b>	knows how to make common work with tourism firms and wild berry growing farms
<b>CO – 7</b>	knows different cultivation methods on mineral soils and on exhausted peat fields;
<b>CO --8</b>	knows rarely cultivated wild berry plants

<b>CO NO</b>	<b>Course Outcomes CATERING AND FOOD PROCESSING – S4NMB2 (NME)</b>
<b>CO – 1</b>	Outline the line the basic classification of foods and its nutritive value
<b>CO – 2</b>	Analyze the constituents, composition and nutritional aspects of vegetables and fruits
<b>CO – 3</b>	Discuss the quality processing, storage and preservation techniques of milk and milk
<b>CO – 4</b>	To know importance of fermented Products
<b>CO – 5</b>	Explain the detection and mechanism of spoilage in foods
<b>CO – 6</b>	Evaluate the significance of next generation foods and strategies to combat nutritional problems
<b>CO – 7</b>	Analyze the constituents, Composition and nutritional aspects of fish , meat and poultry

<b>CO NO</b>	<b>Course Outcomes GENERAL BIOLOGY – P3ABG3</b>
<b>CO – 1</b>	Identify the thallophytes using their internal structures & demonstrate their reproductive structures.
<b>CO – 2</b>	Learn the basic principles of physiological mechanisms.
<b>CO – 3</b>	Examine the mechanism of circulation & excretion.
<b>CO – 4</b>	Elaborate on role of hormones on human health
<b>CO – 5</b>	Students will be able to describe the diversity of life
<b>CO – 6</b>	Students will be able to name the levels of structural organization that makeup the humanbody & explain how they are related
<b>CO – 7</b>	Distinguish the life forms based on their morphology & anatomy

<b>CO NO</b>	<b>Course Outcomes CELL BIOLOGY – Q3ABG3</b>
<b>CO – 1</b>	Understand the ultra structure & functions of cell organelles.
<b>CO – 2</b>	Determine the cell variation.
<b>CO – 3</b>	Analyse the functions of various cell organelles.
<b>CO – 4</b>	Elaborate the mechanisms of cell divisions.
<b>CO – 5</b>	Explain viral replication strategies & pathogenesis
<b>CO – 6</b>	Demonstrate familiarity with various cell surface specialization
<b>CO – 7</b>	Understand terms in cancer biology

<b>CO NO</b>	<b>Course Outcomes LAB IN GENERAL BIOLOGY AND CELL BIOLOGY – Q3ABGL2</b>
<b>CO – 1</b>	Identify the morphological & anatomical parts.
<b>CO – 2</b>	Summarize the organization of invertebrates.
<b>CO – 3</b>	Experiment with the mitosis from various root tip
<b>CO – 4</b>	Develop skills on preparation of specimens.
<b>CO – 5</b>	Formulate the preparation of slides & staining.
<b>CO – 6</b>	Students will be able differentiate the cells of various living organisms
<b>CO – 7</b>	Organize the structures by staining

<b>CO NO</b>	<b>Course Outcomes GENETICS – R3ABG3</b>
<b>CO – 1</b>	Relate the Mendel's law of inheritance to plant genetics.
<b>CO – 2</b>	Apply the methods of determining genetic experiments.
<b>CO – 3</b>	Identify the human karyotype & the syndromes.
<b>CO – 4</b>	Explain the applied aspects of genetics.
<b>CO – 5</b>	Elaborate the mechanism of inheritance pattern
<b>CO – 6</b>	It helps the students to appreciate the concepts of gene& relationship between genotype & phenotype
<b>CO – 7</b>	Develop an understanding of human genetics as it related to contemporary issues involving biology & genetics

<b>CO NO</b>	<b>Course Outcomes BIOSTATISTICS – S3ABG4</b>
<b>CO – 1</b>	Apply statistical tools to solve the research problems in biology.
<b>CO – 2</b>	Interpret the data using test of significance, correlation, regression & ANOVA
<b>CO – 3</b>	Analyse the data using measures of central tendency & dispersion.
<b>CO – 4</b>	Interpret the data using test of significance, correlation, regression & ANOVA
<b>CO – 5</b>	Create graphical & diagrammatic representation for the given data.
<b>CO – 6</b>	Define the principal concepts of probability
<b>CO – 7</b>	Compute & interpret measures of association of continuous & categorical data.

<b>CO NO</b>	<b>Course Outcomes LAB IN GENETICS AND BIOSTATISTICS – S3ABGL2</b>
<b>CO – 1</b>	Build the knowledge on heredity & variation
<b>CO – 2</b>	Develop the knowledge on blood groups.
<b>CO – 3</b>	Analyse the data using measure of central tendency.
<b>CO – 4</b>	Determine the law of probability
<b>CO – 5</b>	Evaluate the mechanism of sex determination & inheritance
<b>CO – 6</b>	Elaborate knowledge on genetics for human welfare & cancer genetics
<b>CO – 7</b>	List the importance of computer application in biostatistics

# DEPARTMENT OF BIOCHEMISTRY

## B.Sc Bio-Chemistry- SUBI

PO NO	Programme Outcomes
PO – 1	Able to get exposed to strong theoretical and practical background in fundamental concepts
PO – 2	To understand the importance of intergration of metabolism and metabolism under starvation
PO – 3	Study the knowledge of metabolic abnormalities and their diagnosis
PO – 4	To apply the biochemical techniques in various field of biosciences
PO – 5	To make aware of diet management for human diseases

PSO NO	Programme Specific Outcomes
PSO – 1	Acquire competence to work in research lab and industry
PSO – 2	Separate biochemical from their natural sources
PSO – 3	Applied the knowledge to formulate diet for persons under clinical treatment
PSO – 4	Facilitate placement in various clinical laboratories and biological research institute
PSO – 5	Aware of intellectual property rights law oriented to the genetic engineering

CO NO	Course Outcomes BIOMOLECULES – P3CBC3
CO – 1	Gain the detail understand about the development of Biochemistry.
CO – 2	Learn the significance of storage & structural polysaccharide discuss its structure and function.
CO – 3	Understands the amino acid structure and its properties.
CO – 4	Categorize the different types of proteins and their function
CO – 5	Demonstrate the classification of fatty acids and discuss the reactions of unsaturated fatty acids.
CO – 6	Understand the significance of nucleic acid acquire the knowledge about DNA and RNA. To get wide about hormones and briefly understand the sources and biological role.

<b>CO NO</b>	<b>Course Outcomes ALLIED CHEMISTRY-I – P3ACH2</b>
<b>CO – 1</b>	Basic knowledge about the structure of atoms, electronic configuration and quantum numbers.
<b>CO – 2</b>	gain the knowledge about the Gaseous state which includes gas laws and kinetic theory of gases
<b>CO – 3</b>	Foundation in the concept of acids and bases
<b>CO – 4</b>	Understanding of chemical bonding includes types of bond and theories
<b>CO – 5</b>	Knowledge of nuclear chemistry includes nuclear fission, nuclear fusion and radioactivity
<b>CO – 6</b>	Knowledge about separation and application of isotopes.
<b>CO – 7</b>	Acquire the knowledge about hybridization and MO theory.

<b>CO NO</b>	<b>Course Outcomes GENERAL BIOLOGY– P3ABG3</b>
<b>CO – 1</b>	Study about morphology and economic importance of cryptogamic plants.
<b>CO – 2</b>	Understand the systematics morphology and structure of Pteridophytes Gymnosperms and Angiospermic plants
<b>CO – 3</b>	To study the organization secretion digestion and functions of digestive system.
<b>CO – 4</b>	Know the respiratory pigments in respiratory system.
<b>CO – 5</b>	Understand the knowledge of components composition and functions of blood in circulatory system.
<b>CO – 6</b>	Study the organisation and functions of excretory system and endocrine gland in endocrine system
<b>CO – 7</b>	Know the development of sex organs and birth control measures in reproductive system.

<b>CO NO</b>	<b>Course Outcomes ENZYMES AND ENZYME TECHNOLOGY – Q3CBC4</b>
<b>CO – 1</b>	Reveal the basic knowledge of enzyme types and its properties.
<b>CO – 2</b>	To enable the students to obtain their knowledge about mechanism of enzyme activity.
<b>CO – 3</b>	Aware the knowledge about factors affecting enzyme activity.
<b>CO – 4</b>	Analyze enzyme catalysis and its mechanism of action.
<b>CO – 5</b>	To get a fundamental knowledge about enzyme immobilization and its application in various fields.
<b>CO – 6</b>	Illustrate the biosensor and how it is applied in biological sciences?

<b>CO NO</b>	<b>Course Outcomes QUALITATIVE ANALYSIS OF BIOMOLECULES AND COLORIMETERY – Q3CBCL2</b>
<b>CO – 1</b>	Estimate the analysis of carbohydrates, protein and aminoacids.
<b>CO – 2</b>	Know the determination of lipids by chemical reactions.
<b>CO – 3</b>	Separate biochemical from their natural sources.
<b>CO – 4</b>	To handle the instruments like PH meter and understand the preparation of buffer.
<b>CO – 5</b>	Understand the instrumentation of colorimeter.
<b>CO – 6</b>	How will you calculate concentration of given coloured compound by using colorimetric method?



<b>CO NO</b>	<b>Course Outcomes ALLIED CHEMISTRY-I- Q3ACH2</b>
<b>CO – 1</b>	Acquire the basic knowledge about the fundamentals of organic chemistry includes IUPAC nomenclature.
<b>CO – 2</b>	Gain the knowledge about the Isomerism includes optical isomerism and geometrical isomerism
<b>CO – 3</b>	Foundation in natural products such as alkaloids and terpenoids
<b>CO – 4</b>	Gain the knowledge about the heterocyclic compounds.
<b>CO – 5</b>	Gain the knowledge of Colloids includes preparation and applications.
<b>CO – 6</b>	Knowledge about empirical and molecular formula.
<b>CO – 7</b>	Understanding about R S Notation & E Z Configuration.

<b>CO NO</b>	<b>Course Outcomes VOLUMETRIC ANALYSIS- Q3ACHL1</b>
<b>CO – 1</b>	Prepare standard solutions.
<b>CO – 2</b>	Standardize the various solutions.
<b>CO – 3</b>	Estimate the amount of substance present in a given solution using acidimetry and alkalimetry.
<b>CO – 4</b>	Knowledge about redox reactions.
<b>CO – 5</b>	Knowledge about the reactions using external indicators.
<b>CO – 6</b>	Estimate the amount of substance using iodimetry.
<b>CO – 7</b>	Know theory of indicators such as Oswald theory and quinonoid theory.

<b>CO NO</b>	<b>Course Outcomes CELL BIOLOGY– Q3ABG3</b>
<b>CO – 1</b>	Study the structural organization of prokaryotes and eukaryotes cell.
<b>CO – 2</b>	Demonstrate the structure, chemical composition and function of cell organelles.
<b>CO – 3</b>	Analyze the structure and function of normal and abnormal chromosomes and their significance.
<b>CO – 4</b>	Know the inevitable instrument for clinical and laboratory studies.
<b>CO – 5</b>	Analyze to prepare different tissue to identify and localize the different chemical compounds and their activities with in the cell.
<b>CO – 6</b>	Understand and identify the formation of abnormal cells and their characteristics.

<b>CO NO</b>	<b>Course Outcomes GENERAL &amp;CELL BIOLOGY – Q3ABGL2</b>
<b>CO – 1</b>	Study to dissect out the angiospermic plants.
<b>CO – 2</b>	Identify the different types of muscles
<b>CO – 3</b>	To know about the human blood cells.
<b>CO – 4</b>	Understand the plant cell structure and mitosis in onion root tip
<b>CO – 5</b>	To study the principle of various microscope
<b>CO – 6</b>	To understand the internal structure of cryptogamic plants in section cutting method
<b>CO – 7</b>	To know about various histochemical staining methods

<b>CO NO</b>	<b>Course Outcomes METABOLISM – R3CBC3</b>
<b>CO – 1</b>	Study the importance of carbohydrate metabolism and its energetics.
<b>CO – 2</b>	To gain the knowledge about what happens when lipids are synthesised &how the lipids convert into vitamin D and steroidal hormones?
<b>CO – 3</b>	Analyze the metabolism of aminoacids and nucleic acids.
<b>CO – 4</b>	Know the concepts of bioenergetics how and when the energy is generated?
<b>CO – 5</b>	Have a complete understanding about hormones, how it is classify and list out the functions of hormonesl.
<b>CO – 6</b>	Understand the relationship between hormones and regulation of growth.

<b>CO NO</b>	<b>Course Outcomes QUANTITATIVE ANALYSIS OF BIOMOLECULES – R3CBCL2</b>
<b>CO – 1</b>	Study the principle and procedure for the analysis of carbohydrates.
<b>CO – 2</b>	Prove the determination of protein by Lowrys and Biuret methods.
<b>CO – 3</b>	Analyze the estimation of lipid ( cholesterol ) by Zak method.
<b>CO – 4</b>	Determine the vitamins (Ascorbic acid) by Titrimetry and Colorimetry.
<b>CO – 5</b>	Know the principle and application of colorimeter.
<b>CO – 6</b>	To state the quantity of minerals in natural products.

<b>CO NO</b>	<b>Course Outcomes INDUSTRIAL CHEMISTRY– R3ACH3</b>
<b>CO – 1</b>	Acquire the basic knowledge about the purification and Sterilization of water.
<b>CO – 2</b>	Gain the knowledge about Chemotherapy includes sulpha drugs, antipyretics and analgesics
<b>CO – 3</b>	Know the manufacture of industrial products such as soaps and detergents
<b>CO – 4</b>	Understanding of the refining process of natural rubber and about plastics.
<b>CO – 5</b>	Gain the knowledge about the importance and manufacture of fertilizers and insecticides.
<b>CO – 6</b>	Know about the reactions and uses of thermo and thermosetting plastics.
<b>CO – 7</b>	Know about the knowledge of the importance of plant nutrients.

<b>CO NO</b>	<b>Course Outcomes GENETICS – R3ABG3</b>
<b>CO – 1</b>	Knowledge about the transmission of characters from parents to the young ones by using different experiment.
<b>CO – 2</b>	Prove the importance of gene and chromosome to exchange the characters from parents to offspring
<b>CO – 3</b>	Analyze the gene frequency about selective population in a constant gene pool
<b>CO – 4</b>	Demonstrate the chromosomal syndrome and symptoms of non-disjunction
<b>CO – 5</b>	Know the principle and application to detect the different hereditary disease and their types.
<b>CO – 6</b>	Study the distinguish between euploidy and aneuploidy.

<b>CO NO</b>	<b>Course outcomes HUMAN DISEASE AND PREVENTION- R4NBC1</b>
<b>CO-1</b>	Understand and explain stages of infections disease
<b>CO-2</b>	Describe various modes by which infections spread in community
<b>CO-3</b>	Understand and describe human body's resistance mechanism against disease
<b>CO-4</b>	Describe and explain the reasons, classes and development of prevention of human
<b>CO-5</b>	Understand the role of symptoms and disease control process
<b>CO-6</b>	Understand how to educate the people about taking care of health

<b>CO NO</b>	<b>Course Outcomes BLOOD BIOCHEMISTRY – (SSP)</b>
<b>CO – 1</b>	Acquire knowledge about collection and storage of human specimens in clinical to future use.
<b>CO – 2</b>	Know the importance, diagnosis methods and differentiate the R.B.C.
<b>CO – 3</b>	Utilize the knowledge about the disorder disease in human.
<b>CO – 4</b>	Acquire knowledge about procedure, application and difficulties of blood transfusion..
<b>CO – 5</b>	Practice about different collection methods and materials used in diagnostics.

<b>CO NO</b>	<b>Course Outcomes CLINICAL BIOCHEMISTRY – S3CBC5</b>
<b>CO – 1</b>	Apply appropriate technique used in clinical assays and learn the development of clinical biochemistry..
<b>CO – 2</b>	Understand the etiology of disorder and inborn error of carbohydrate metabolism.
<b>CO – 3</b>	Knowledge about the clinical studies facilitates in employability in diagnostic and research institutes.
<b>CO – 4</b>	A critical understanding of how biochemical investigations are employed to develop a clinical diagnosis..
<b>CO – 5</b>	Gain a deep understanding about diseases associated with endocrine disorders.
<b>CO – 6</b>	Review tissue function test and its significance.

<b>CO NO</b>	<b>Course Outcomes LAB IN CLINICAL BIOCHEMISTRY – S3CBCL3</b>
<b>CO – 1</b>	Know the Analytical methods commonly used in clinical laboratory.
<b>CO – 2</b>	Evaluate the abnormalities commonly occurred in the clinical field.
<b>CO – 3</b>	Perform clinical tests (urine sample ) for diagnostic purposes.
<b>CO – 4</b>	Identify and confirm the abnormal constituents (glucose, proteins, ketone bodies ) of urine.
<b>CO – 5</b>	To check out the students blood constituents.
<b>CO – 6</b>	To gain a knowledge of analysing biochemical components in our blood sample.

<b>CO NO</b>	<b>Course Outcomes BIOPHYSICAL CHEMISTRY– S3ACH4</b>
<b>CO – 1</b>	acquire the basic knowledge about Chemical kinetics that includes order and molecularity of reactions
<b>CO – 2</b>	gain the knowledge about the Photochemistry includes Photochemical laws and applications.
<b>CO – 3</b>	will have a firm foundation in spectroscopy (UV-Visible, IR, H1NMR)
<b>CO – 4</b>	understanding of Chemical equilibrium which includes law of mass action and Le-Chatelier principle
<b>CO – 5</b>	knowledge about the basic concepts in electrochemistry
<b>CO – 6</b>	Know about the types of electrodes and membrane potential.
<b>CO – 7</b>	Understanding the principle of luminescence and photosensitization.

<b>CO NO</b>	<b>Course Outcomes QUALITATIVE ANALYSIS FOR ORGANIC COMPOUNDS– S3ACHL2</b>
<b>CO – 1</b>	Understand the common organic chemistry reactions.
<b>CO – 2</b>	Detection elements such as nitrogen, sulphur and halogens
<b>CO – 3</b>	Analysis of the organic compounds whether aliphatic or aromatic.
<b>CO – 4</b>	Analysis of the compounds whether saturated or unsaturated.
<b>CO – 5</b>	Classification of various organic compounds based on functional groups
<b>CO – 6</b>	Understanding of the various colour reactions of organic compounds.
<b>CO – 7</b>	Synthesis of specific organic compounds.

<b>CO NO</b>	<b>Course Outcomes BIO-STATISTICS – S3ABG4</b>
<b>CO – 1</b>	Apply appropriate statistical tools in the problem solving Define variability and uncertainty in sampling and data collection.
<b>CO – 2</b>	Applying mathematical relation to biological research.
<b>CO – 3</b>	Knowledge about the probability to test the significance level of testing hypothesis
<b>CO – 4</b>	Practise statistical principles and to apply basic statistics in biological research.
<b>CO – 5</b>	Calculate the statistical analysis of more than one variables and their significance
<b>CO – 6</b>	Check out the students fitness to using statistical tools.

<b>CO NO</b>	<b>Course Outcomes GENETICS AND BIOSTATISTICS – S3ABGL2</b>
<b>CO – 1</b>	Know the application of appropriate statistical tools used in problem solving.
<b>CO – 2</b>	Recognize various application of computer knowledge in biology.
<b>CO – 3</b>	Practise statistical principles and to apply basic statistics
<b>CO – 4</b>	Have a basic principles of probability distribution
<b>CO – 5</b>	To check out the students fitness to test the hypothesis level
<b>CO – 6</b>	Know about the application and importance of blood.

<b>CO NO</b>	<b>COURSE OUTCOMES FOOD AND NUTRITION- S4NBC2 (NME)</b>
<b>CO - 1</b>	Out line the line the basic classification of foods and its nutritive value
<b>CO - 2</b>	Analyze the constituents, composition and nutritional aspects of vegetables and fruits
<b>CO - 3</b>	Discuss the quality processing, storage and preservation techniques of milk and milk
<b>CO - 4</b>	Products
<b>CO - 5</b>	Explain the detection and mechanism of spoilage in foods
<b>CO - 6</b>	Evaluate the significance of next generation foods and strategies to combat nutritional problems
<b>CO - 7</b>	Analyze the constituents, composition and nutritional aspects of fish , meat and poultry

<b>CO NO</b>	<b>Course Outcomes MEDICAL LAB TECHNOLOGY – (SSP)</b>
<b>CO – 1</b>	Understand the histopathology procedure and identification of techniques and instrumentation
<b>CO – 2</b>	Identify the normal and abnormal conditions of different tissues.
<b>CO – 3</b>	Know the knowledge to observe the different specimens.
<b>CO – 4</b>	Know the collection of sputum and diagnosis of different disease.
<b>CO – 5</b>	Acquire know aabout infertility on human.

<b>CO NO</b>	<b>Course Outcomes MEDICINAL PLANTS– T3CBC9</b>
<b>CO – 1</b>	Understand the scope and importance of medicinal plants.
<b>CO – 2</b>	Study the divisions of pharmacology and study of different types of medicines, diagnosis treatment and uses
<b>CO – 3</b>	Know the bioactive substances and their isolation properties and uses..
<b>CO – 4</b>	Know the biological source, geographical distribution, cultivation process, chemical constituents and uses of cryptogamic and phenerogamic plants
<b>CO – 5</b>	Understand the phenology of selected plants and their uses.
<b>CO – 6</b>	To know about the organised drug yielding plants and their chemical constituents and uses
<b>CO – 7</b>	To learn the unorganized drugs like latex resin and gum yielding plants.

<b>CO NO</b>	<b>Course Outcomes MICROBIOLOGY AND IMMUNOLOGY – T3CBC10</b>
<b>CO – 1</b>	Acquire the knowledge on structure, classification and identification of micro organisms in diversity.
<b>CO – 2</b>	Practice the microbiological techniques in research field.
<b>CO – 3</b>	Understands the energy source of microbes
<b>CO – 4</b>	Categorize the different types of immunoglobulins and their function
<b>CO – 5</b>	Demonstrate the detection and identification of different antigen and antibodies
<b>CO – 6</b>	Explore the beneficial role of microbes in food.

<b>CO NO</b>	<b>Course Outcomes BIOTECHNIQUES – T3CBC7</b>
<b>CO – 1</b>	To know the principle procedure and applications of Chromatography.
<b>CO – 2</b>	Study and understand the principle procedure and applications of electrophoretic techniques.
<b>CO – 3</b>	To know the types of gel electrophoresis and centrifuges
<b>CO – 4</b>	To study the principle procedure and applications of centrifugation methods
<b>CO – 5</b>	To learn the principle instrumentation procedure and applications of colorimetry
<b>CO – 6</b>	Understand the principle procedure and applications of spectrometer, Dialysis, electro dialysis, reverse osmosis and lyophilisation.
<b>CO – 7</b>	Learn and study the radioactive isotopes, measurement of radioactivity and their biological applications.



<b>CO NO</b>	<b>Course Outcomes MOLECULAR BIOLOGY - T3CBC11</b>
<b>CO1</b>	Understand and explain the origin of bio molecules
<b>CO2</b>	Learn about the organization of genetic materials in organisms
<b>CO3</b>	Know about the mechanisms DNA replication, transcription, and translation processes in organisms
<b>CO4</b>	Understand and describe various concepts –related with gene and its regulation
<b>CO5</b>	Explain the causes of gene mutation and their effect on cell
<b>CO6</b>	Realize knowledge about the transposable elements types of plasmids and its applications
<b>CO7</b>	Know about the inhibitors drugs mechanisms DNA replication, transcription and translation processes in organism
<b>CO8</b>	Explain and describe the process of replication of DNA and Post translational, post-transcriptional modification process in organism

<b>CO NO</b>	<b>Course Outcomes PRACTICAL- MICROBIOLOGY AND MEDICINAL PLANTS – T3CBCL6</b>
<b>CO – 1</b>	To learn about analytical microbiological techniques.
<b>CO – 2</b>	Gain knowledge about methods of sterilization and serial dilution techniques.
<b>CO – 3</b>	Study the pure culture techniques like spread plate, streak plate and pour plate technique.
<b>CO – 4</b>	To know about the phases of growth curve by turbidometry method
<b>CO – 5</b>	Understand the techniques of motility test methylene blue test and acidity in milk.
<b>CO – 6</b>	To study the collection and identify locally available herbal plants.
<b>CO – 7</b>	Know about the preparation of herbarium techniques.

<b>CO NO</b>	<b>Course Outcomes LAB IN IMMUNOLOGY AND BIOTECHNIQUES – T3CBCL7</b>
<b>CO – 1</b>	Know the knowledge about basis composition of human blood and differentiate the structure of blood cells.
<b>CO – 2</b>	Explain the principle in blood grouping and analyse, interpret the results.
<b>CO – 3</b>	Learn about what is immunoassay and do the assay technique for various diagnostics.
<b>CO – 4</b>	Acquire knowledge about how will you separate and identify the lipids or carbohydrates by TLC.
<b>CO – 5</b>	Categorize the different components of blood and evaluate the RBC sedimentation rate by Westergren method.
<b>CO – 6</b>	Know the principle and application of paper chromatography and separate identify the amino acid mixture by Ascending method.

<b>CO NO</b>	<b>Course Outcomes NUTRITION DIETETICS – U3CBC9</b>
<b>CO – 1</b>	Reveal the basic knowledge of nutrients present in commonly used food.
<b>CO – 2</b>	Determine the calorific value and Basal metabolic rate of nutrients in different food by using different methods.
<b>CO – 3</b>	Aware the knowledge about energy requirement in different development stage in human.
<b>CO – 4</b>	Analyze the importance, malnutrition and calculate the value of protein to using various methods.
<b>CO – 5</b>	Recommend the different diet about during treatment in different diseased condition in hospitality
<b>CO – 6</b>	Illustrate the nutritional status of supplementary and genetically modified food materials.

<b>CO NO</b>	<b>Course Outcomes PLANT BIOCHEMISTRY – U3CBC10</b>
<b>CO – 1</b>	Understand scope and importance of plant physiology and know the photosynthetic pigments.
<b>CO – 2</b>	Study the knowledge of photosynthetic mechanism, photorespiration and CAM cycle
<b>CO – 3</b>	To know the physiological roles of plant growth regulators.
<b>CO – 4</b>	Understand the mechanism of nitrogen fixation, physiological functions and deficiency of macro and micro nutrients.
<b>CO – 5</b>	To gain the knowledge of absorption and translocation of minerals.
<b>CO – 6</b>	Know the physiology of flowering in phytochrome, photoperiodism, vernalization and geotropism.
<b>CO – 7</b>	Understand plant tissue culture techniques and importance of plant disease and defense mechanism

<b>CO NO</b>	<b>Course Outcomes HERBAL TECHNOLOGY - U3CBC11</b>
<b>CO – 1</b>	Understand the scope concept and importance of herbal technology.
<b>CO – 2</b>	Get the ideas about physical chemical and biological evolution of drugs
<b>CO – 3</b>	Study about oil yielding plants and the evolutions.
<b>CO – 4</b>	To study various extraction process and herbal medicines.
<b>CO – 5</b>	Gain the knowledge of chooranam, thylam, legiyam, parpam preparations.
<b>CO – 6</b>	Understand the knowledge of value added products in Aloe, Azardirachta, Curcuma And Ocimum.
<b>CO – 7</b>	To know the concept of IPR, WTO, and cosmetics Act of 1940.

<b>CO NO</b>	<b>Course Outcomes GENETIC ENGINEERING AND INDUSTRIAL BIOTECHNOLOGY – U3CBC12</b>
<b>CO – 1</b>	Illustrate the tools and strategies of gene cloning vectors manipulation and application in various organisms.
<b>CO – 2</b>	Know the Manipulation of genetic make – up of organism by introducing desired DNA,s and a novel gene can be transferred to closely related organism as well as unrelated organisms.
<b>CO – 3</b>	Practise about the application of different biological tools used in multiplication of desied genes.
<b>CO – 4</b>	Practise to yield so many valuable products to sustaine the human welfare.
<b>CO – 5</b>	Understand the impact, importance and statergies of Act used in future research

<b>CO. NO</b>	<b>COURSE OUTCOMES BIOINFORMATICS - U3CBC13</b>
<b>CO1</b>	Explain the history of bioinformatics
<b>CO2</b>	Outline computational tools of bioinformatics
<b>CO3</b>	Compare DNA,RNA and protein sequence for analytical studies
<b>CO4</b>	Assess phylogenetic methods
<b>CO5</b>	Identify new research fields in biology
<b>CO6</b>	Basic algorithms used in pair wise and multiple alignment
<b>CO7</b>	Application of probabilistic model to determine important patterns
<b>CO8</b>	Prediction of structure from sequence and subsequently testing the accuracy of predicted structures.

<b>CO NO</b>	<b>Course Outcomes PRACTICAL – HERBAL TECHNOLOGY – U3CBCL7</b>
<b>CO – 1</b>	Study the isolation process of Tannins in medicinal plants
<b>CO – 2</b>	To know the secondary metabolites like alkaloids, saponins for different herbal plants
<b>CO – 3</b>	Gain the knowledge of various herbal medicines preparation
<b>CO – 4</b>	Understand to prepare the Chooranam, thylam, legiyam, parpam, chendooram and tonic wine.
<b>CO – 5</b>	To know about herbal industry visit
<b>CO – 6</b>	Understand the Ayurvedic medicines
<b>CO – 7</b>	Identify the different herbal drug evaluation methods.

<b>CO NO</b>	<b>Course Outcomes LAB IN BIOTECHNOLOGY AND BIOINFORMATICS – U3CBCL6</b>
<b>CO – 1</b>	Perform bioprotocols by employ their practical training.
<b>CO – 2</b>	Understand the biological role of DNA and learn the isolation, quantitation and quality assessment of bacteria DNA.
<b>CO – 3</b>	Illustrate the screening of DNA by Agarose gel electrophoresis.
<b>CO – 4</b>	Recognise how the proteins should be separated and identified through SDS-PAGE.
<b>CO – 5</b>	Demonstrate the structure and applications of plasmid.
<b>CO – 6</b>	Analyze the isolation and quality assessment of plasmid DNA. Retrieving DNA and Protein sequences from biological databases. Using informatics tools in conducting research.

# DEPARTMENT OF COMPUTER SCIENCE

## B.Sc COMPUTER SCIENCE - SUCS

PO NO	Programme Outcomes
PO – 1	Understand the basic and advanced concept of computer science and adopt recent industrial program coding.
PO – 2	Analyze the real-time concept of mathematical oriented concepts.
PO – 3	Apply the knowledge of the hardware of the computer.
PO – 4	Implement and independent project of the student community
PO – 5	Prepare themselves with an Empowered efficient and proper attitude and interact completely and manage as a company.

PSO NO	Programme Specific Outcomes
PSO – 1	Quire scholarly merit with a qualified skill for higher studies.
PSO – 2	Achieve greater heights in various sectors of IT industry.
PSO – 3	Analyze and administer computing practices to succeed as an employee or an entrepreneurial career.
PSO – 4	Ethically and professionally pledged with the strength to relate computer applications to a more immense communal context for the growth of the nation.
PSO – 5	Create, select, and apply modern tools and techniques to analyze and develop a successful software system.

<b>CO NO</b>	<b>Course Outcomes DIGITAL PRINCIPLES AND COMPUTER ORGANIZATION – P3CCS3</b>
<b>CO – 1</b>	To learn about the various types of number systems.
<b>CO – 2</b>	To enable students to construct Karnaugh maps.
<b>CO – 3</b>	To learn about the Multiplexers and Encoders.
<b>CO – 4</b>	To analyze Flip-Flops and shift registers.
<b>CO – 5</b>	To learn about functional units of the computer system.
<b>CO – 6</b>	To understand the concept of stack and queue.
<b>CO – 7</b>	To learn about the various types of addressing modes.
<b>CO – 8</b>	To analyze Direct Memory Access.
<b>CO – 9</b>	To determine the architecture of the microprocessor
<b>CO – 10</b>	To understand 8085 microprocessor programming modes, pin-function architecture.

<b>CO NO</b>	<b>Course Outcomes PROGRAMMING IN C-P3CCS2</b>
<b>CO – 1</b>	To understand the structure programming concepts, constants, variable, and data types.
<b>CO – 2</b>	To analyze the operators and expressions.
<b>CO – 3</b>	To learn the conditional statements and loops.
<b>CO – 4</b>	To understand and apply the concept of array and user defined functions.
<b>CO – 5</b>	To analyze the usage of structure, union, pointers and make them to efficiently access the memory.
<b>CO – 6</b>	To understand and evaluate the file operation and dynamic memory allocation.

<b>CO NO</b>	<b>Course Outcomes STATISTICS - P3ACS2</b>
<b>CO – 1</b>	To learn about the curve fitting and principles of least squares.
<b>CO – 2</b>	Find out the equation of curve fitting and second degree parapola.
<b>CO – 3</b>	Definition of correlation.
<b>CO – 4</b>	Create the rank correlation using formula.
<b>CO – 5</b>	To learn about the two line of regression.
<b>CO – 6</b>	Demonstrate the knowledge of probability.
<b>CO – 7</b>	To understand the concept of conditional probability.
<b>CO – 8</b>	Knowledge of probability and the standard statistical distribution.
<b>CO – 9</b>	To learn about the some distribution to solve the problem.
<b>CO – 10</b>	To understand the commodity and price relative.
<b>CO – 11</b>	To create the conversion of Chain Based Index number to Fixed Based Index Number.

<b>CO NO</b>	<b>Course Outcomes LAB – I PROGRAMMING IN C - P3CCSL1</b>
<b>CO – 1</b>	To remember the basic data types, operators and to write simple program using them.
<b>CO – 2</b>	To understand the conditional statements and loops for creating programs.
<b>CO – 3</b>	To apply the concept of arrays functions and design applications of programs.
<b>CO – 4</b>	To analyze the usage of structures, pointers.
<b>CO – 5</b>	To evaluate the file operations.
<b>CO – 6</b>	To write programs to use file concept.

<b>CO NO</b>	<b>Course Outcomes LAB – II MS – OFFICE - P3CCSL2</b>
<b>CO – 1</b>	To understand the components of office automations.
<b>CO – 2</b>	To perform operations using MS - word.
<b>CO – 3</b>	To perform operation using MS – Excel.
<b>CO – 4</b>	How to prepare power point presentation.
<b>CO – 5</b>	Design the slide show presentation.
<b>CO – 6</b>	To analyze the database using MS – Access.

<b>CO NO</b>	<b>Course Outcomes OPERATING SYSTEMS – Q3CCS5</b>
<b>CO – 1</b>	To make the computer system convenient to use in an efficient manner.
<b>CO – 2</b>	To hide the details of the hardware resources from the user.
<b>CO – 3</b>	To provide users a convenient interface to use the computer system.
<b>CO – 4</b>	To provide efficient and file sharing of resources among users and programs.
<b>CO – 5</b>	To aim of Central Processing Unit scheduling is to make the system efficient fast and fair.
<b>CO – 6</b>	To increase system performance in accordance with the chosen set of criteria.
<b>CO – 7</b>	To develop a description of deadlocks, which prevent sets of concurrent processes from completing their tasks.
<b>CO – 8</b>	The ability to move process around in memory without it affecting its execution.
<b>CO – 9</b>	To allow address space that are larger than the physical address space.
<b>CO – 10</b>	It provides Input Output support for a variety of storage device types.



<b>CO NO</b>	<b>Course Outcomes OBJECT ORIENTED PROGRAMMING IN C++ - Q3CCS4</b>
<b>CO – 1</b>	To learn about the basic concept of object oriented programming.
<b>CO – 2</b>	To learn about the tokens, keywords, identifiers, and constants.
<b>CO – 3</b>	To analyze function prototyping, call by reference, return by reference.
<b>CO – 4</b>	To create Math library functions.
<b>CO – 5</b>	To learn about the C++ program with class, nesting of member functions.
<b>CO – 6</b>	To learn constructor with default argument.
<b>CO – 7</b>	To understand operator overloading and type conversions.
<b>CO – 8</b>	To learn about types of an inheritance.
<b>CO – 9</b>	To learn about pointers.
<b>CO – 10</b>	To determine formatted and unformatted console I/O operations.
<b>CO – 11</b>	To know about classes for file operations.

<b>CO NO</b>	<b>Course Outcomes DISCRETE MATHEMATICS - Q3ACS3</b>
<b>CO – 1</b>	Definition of set functions.
<b>CO – 2</b>	To apply set symbols and types of set.
<b>CO – 3</b>	To create Venn diagram.
<b>CO – 4</b>	To learn about the connectives of true/false statement.
<b>CO – 5</b>	Create the truth table using statements.
<b>CO – 6</b>	To learn about the types of lattices and prove the theorem.
<b>CO – 7</b>	Definition of Boolean algebra.

<b>CO – 8</b>	Develop the pentagon diagram.
<b>Ca – 9</b>	To learn about the types matrices.
<b>CO – 10</b>	To find the value of matrices and Left Hand Side, Right Hand Side
<b>CO – 11</b>	Apply the language features including Finite Automata and Non-Finite Automata
<b>CO – 12</b>	Using the state table and state diagram.
<b>CO – 13</b>	Create language accepted by Finite Automata and Non-Finite Automata.

<b>CO NO</b>	<b>Course Outcomes LAB – III C ++ PROGRAMMING - Q3CCSL3</b>
<b>CO – 1</b>	To implement inheritance – multiple, multi level, hybrid, and hierarchical inheritance
<b>CO – 2</b>	To implement operator overloading and function overloading
<b>CO – 3</b>	To create constructor and destructor.
<b>CO – 4</b>	To execute friend function.
<b>CO – 5</b>	To demonstrate matrix addition and multiplication using operator overloading.
<b>CO – 6</b>	To implement classes and object.
<b>CO – 7</b>	To process library maintenance using file concept.

<b>CO NO</b>	<b>Course Outcomes LAB – IV VISUAL BASIC - Q3CCSL4</b>
<b>CO – 1</b>	To understand visual basic application.
<b>CO – 2</b>	To implement programs using variable, data type and control structures.
<b>CO – 3</b>	To analyze use the picture box control, text box control, and flex control.
<b>CO – 4</b>	Create and using color palette; and file operation.
<b>CO – 5</b>	Understand the process of using data control visual basic programming.

<b>CO NO</b>	<b>Course Outcomes FUNDAMENTALS OF DATA STRUCTURES USING C++ - R3CCS5</b>
<b>CO – 1</b>	To learn operator, iteration, functions, strings, and files.
<b>CO – 2</b>	To implement new and delete operator arrays.
<b>CO – 3</b>	To learn a point class, this pointer, line class.
<b>CO – 4</b>	To execute Fibonacci series, binomial co-efficient, towers of Hanoi, mutual recursion.
<b>CO – 5</b>	To learn stack, applications of stack, link implementation.
<b>CO – 6</b>	To learn queues, application of queues, linked implementation.
<b>CO – 7</b>	To implement list operation.

<b>CO NO</b>	<b>Course Outcomes MULTIMEDIA - R3CCS7</b>
<b>CO – 1</b>	To learn and understand multimedia, resources of multimedia.
<b>CO – 2</b>	To understand hardware, software, and operating system.
<b>CO – 3</b>	Ability to understand the graphics and digital audio.
<b>CO – 4</b>	To know the concept of digital video and animation.
<b>CO – 5</b>	To analyze the operation of authoring tools.
<b>CO – 6</b>	Ability to understand the flash 5.0

<b>CO NO</b>	<b>Course Outcomes NUMERICAL METHODS – R3ACS4</b>
<b>CO – 1</b>	To express to compute solution of simultaneous linear algebraic equations.
<b>CO – 2</b>	To identify to understanding the direct method and indirect method.
<b>CO – 3</b>	To learn about each method using formula and tabulation.
<b>CO – 4</b>	To find out the value of function.

<b>CO – 5</b>	To learn about the fundamental of differential equation and integration.
<b>CO – 6</b>	Explain the method of Taylor series method and Euler method.
<b>CO – 7</b>	To create the tabulation.
<b>CO – 8</b>	To express various type of iterative method.
<b>CO – 9</b>	To develop the iteration using decimal places.

<b>CO NO</b>	<b>Course Outcomes LAB – DATA STRUCTURE IMPLEMENTATION IN C++ - R3CCSL5</b>
<b>CO – 1</b>	To create a program to add, delete, in single linked list, double linked list, circular linked list.
<b>CO – 2</b>	To create stack using pointer.
<b>CO – 3</b>	To implement queue using pointer.
<b>CO – 4</b>	To know linear searching and binary searching.
<b>CO – 5</b>	To implement various tree traversal using pointer.
<b>CO – 6</b>	To perform sorting techniques of numbers, character value and string.

<b>CO NO</b>	<b>Course Outcomes LAB – MULTIMEDIA - R3CCSL7</b>
<b>CO – 1</b>	To implement easy picture animation.
<b>CO – 2</b>	Demonstrate the image rotation.
<b>CO – 3</b>	Applying the shape tweening effect, motion tweening effect.
<b>CO – 4</b>	To implement different text effect.
<b>CO – 5</b>	To analyze the zooming effect.
<b>CO – 6</b>	To learn the various photo editing features and animation techniques.
<b>CO – 7</b>	To identify the basic tools and components of multimedia

<b>CO NO</b>	<b>Course Outcomes WEB TECHNOLOGIES – R4NCS1(NME)</b>
<b>CO – 1</b>	Non major students to appear in our department and study our major paper.
<b>CO – 2</b>	To enable the students explain the importance of internet and web designing.
<b>CO – 3</b>	To become familiar with internet, HTML, DHTML, and XML.
<b>CO – 4</b>	To know the idea about HTML tags.
<b>CO – 5</b>	How to create a simple web design.

<b>CO NO</b>	<b>Course Outcomes DATA BASE MANAGEMENT SYSTEM – S3CCS9</b>
<b>CO – 1</b>	To learn about the characteristics of data in a database.
<b>CO – 2</b>	To enable students to understand the various types of data base models.
<b>CO – 3</b>	To enable students to construct E-R model.
<b>CO – 4</b>	To learn about the various normalization form.
<b>CO – 5</b>	To learn about the various types of database users.
<b>CO – 6</b>	To understand transaction properties and various transaction states.
<b>CO – 7</b>	To learn about the different causes of failures.
<b>CO – 8</b>	To enable the students to understand client/server architecture, functions of distributed DBMS.
<b>CO – 9</b>	To learn about the benefits of parallel processing and parallel databases.
<b>CO – 10</b>	To learn about the mobile database processing.

<b>CO NO</b>	<b>Course Outcomes JAVA PROGRAMMING-S3CCS8</b>
<b>CO – 1</b>	To Understand basic concepts of Object Oriented Programming and Java Programming Constructs like constants, variables, and operators.
<b>CO – 2</b>	To Understand the concepts of control statements.
<b>CO – 3</b>	To Understand the concepts of classes, objects, method overloading, inheritance, arrays, strings and vectors.
<b>CO – 4</b>	To Interpret in detail Interfaces in Java.
<b>CO – 5</b>	To build applications using Packages.
<b>CO – 6</b>	To Understand the need the concepts of multi threading by using thread class and implementing Runnable interface.
<b>CO – 7</b>	To Understand the concepts of errors and exceptions, keywords that are used to manage Exceptions.
<b>CO – 8</b>	Understand the concept of applets by how to create and run applets and Graphics programming by various classes in the graphics class.
<b>CO – 9</b>	Implement the basic needs of Graphics Programming.
<b>CO – 10</b>	To develop real time applications.

<b>CO NO</b>	<b>Course Outcomes OPERATION RESEARCH-S3ACS4</b>
<b>CO – 1</b>	Express the complete formulation of LPP as a general mathematical model.
<b>CO – 2</b>	Solve the LPP by graphical method, simplex method.
<b>CO – 3</b>	To identify the disadvantage of big M method over two phase method.
<b>CO – 4</b>	To learn the conversion of unbalanced problem in to balanced one.
<b>CO – 5</b>	Gives mathematical formulation of a transportation problem.
<b>CO – 6</b>	To state the difference between transportation model and assign model.
<b>CO – 7</b>	Explains the steps of Hungarian method.

<b>CO – 8</b>	To understands travelling salesman problem and lists its objectives.
<b>CO – 9</b>	To understand the game theory and mention the area of business and management where game theory can be used.
<b>CO – 10</b>	Explain the terms pay off matrix, pure and mixed strategies, dominance property.
<b>CO – 11</b>	To construct a PERT network and finds the critical path.
<b>CO – 12</b>	Distinguishes between CPM and PERT.

<b>CO NO</b>	<b>Course Outcomes ORACLE PROGRAMMING LAB-S3CCSL7</b>
<b>CO – 1</b>	To understand the various definition languages.(DDL,DML)
<b>CO – 2</b>	To enable students to understand various set operators.
<b>CO – 3</b>	To understand the concept of triggers.
<b>CO – 4</b>	To learn the concept of functions.
<b>CO – 5</b>	To know the concept of procedures.
<b>CO – 6</b>	To learn the concept of packages.
<b>CO – 7</b>	To learn about the various joining operations.
<b>CO – 8</b>	To learn about E-R model design.
<b>CO – 9</b>	To understand various numeric function.
<b>CO – 10</b>	To understand various group functions.
<b>CO – 11</b>	To learn about implicit and explicit cursor.
<b>CO – 12</b>	To enable student to understand the concept of report generation.

<b>CO NO</b>	<b>Course Outcomes JAVA PROGRAMMING LAB-S3CCSL8</b>
<b>CO – 1</b>	To explain simple Object Oriented Programs using Java.
<b>CO – 2</b>	To Perform Arrays and Flow Control Statement.
<b>CO – 3</b>	To explain Run Time Exception and I/O Exception.
<b>CO – 4</b>	To describe Multithreading.
<b>CO – 5</b>	To inspect the usage of string operations.
<b>CO – 6</b>	To analyze about Java Packages.
<b>CO – 7</b>	To examine Java Interface
<b>CO – 8</b>	To create GUI component like Label, Check box, Menus and Text.
<b>CO – 9</b>	To implement event handling like Focus, Key, Paint, Text, Mouse and Windows
<b>CO – 10</b>	To interpret about Java Applet and Java Data Base Connectivity

<b>CO NO</b>	<b>Course Outcomes ORACLE-S4NCS2 (NME)</b>
<b>CO – 1</b>	Non major students to appear in our department and study our major paper.
<b>CO – 2</b>	Enable students to understand various definition language.
<b>CO – 3</b>	To learn about sorting operations.
<b>CO – 4</b>	To understand about group functions, list functions.
<b>CO – 5</b>	To learn about the ROLLBACK command, COMMIT command.
<b>CO – 6</b>	To learn about the date arithmetic.



<b>CO NO</b>	<b>Course Outcomes COMPUTER NETWORKS-T3CCS12</b>
<b>CO – 1</b>	To know about the uses of computer networks
<b>CO – 2</b>	To identify different components of network hardware software.
<b>CO – 3</b>	Enumerate the layers of the OSI/TCP/IP.
<b>CO – 4</b>	Ability to understand the different transmission, narrowband ISDN, broadband ISDN, Cellular radio.
<b>CO – 5</b>	To know the data link layer concepts, error detection, correction, elementary data link layer protocol, sliding window protocol.
<b>CO – 6</b>	Ability to understand the routing algorithms, transport layer concepts.
<b>CO – 7</b>	Analyse the application layer, network layer, network security, E-mail, WWW.

<b>CO NO</b>	<b>Course Outcome WEB TECHNOLOGIES - T3CCS13</b>
<b>CO – 1</b>	To enable the students explain the importance of internet and web designing.
<b>CO – 2</b>	To become familiar with internet, HTML, DHTML, XML.
<b>CO – 3</b>	To understand the introduction to the internet.
<b>CO – 4</b>	To learn internet technologies.
<b>CO – 5</b>	To know about internet browsers, internet explorer.

<b>CO NO</b>	<b>Course Outcome J2EE-T3CCS14</b>
<b>CO – 1</b>	To know the features of J2EE Platform and its application domains and technologies.
<b>CO – 2</b>	To develop applications with JSP and Servlet.
<b>CO – 3</b>	To create applications using database connectivity.
<b>CO – 4</b>	To Understand in detail JavaScript various Objects.
<b>CO – 5</b>	To recall in detail JSP Reading Request Information
<b>CO – 6</b>	To describe JSP Components, JSP Sessions and JSP Cookies
<b>CO – 7</b>	To Inspect Handling servlet get request, servlet Post request and servlet Cookies
<b>CO – 8</b>	To Create servlet database Connectivity.
<b>CO – 9</b>	Implement EJB's Session and Entity Bean.
<b>CO – 10</b>	Interpret Session Bean State Management Modes and Entity Bean Life Cycle.

<b>CO NO</b>	<b>Course Outcomes LINUX LAB-T3CCSL11</b>
<b>CO – 1</b>	To implement attributes of a given file
<b>CO – 2</b>	To find the number of users who have logged.
<b>CO – 3</b>	To execute various string operations.
<b>CO – 4</b>	To execute the comparison of files.
<b>CO – 5</b>	To learn about communication command.
<b>CO – 6</b>	To create and append a file.

<b>CO NO</b>	<b>Course Outcomes WEB TECHNOLOGIES LAB-T3CCSL12</b>
<b>CO – 1</b>	To learn and implement the scripting languages, design and develop the programs for web-sites.
<b>CO – 2</b>	To display an image as a hyperlink.
<b>CO – 3</b>	To learn simple JSP program to static, dynamic inclusion.
<b>CO – 4</b>	To introduce the concept of HTML in all the heading levels.
<b>CO – 5</b>	To knowledge understanding JSP program form handling

<b>CO NO</b>	<b>Course Outcomes SOFTWARE ENGINEERING-T3ECS1</b>
<b>CO – 1</b>	To produce the software product.
<b>CO – 2</b>	To produce reliable and trust worthy systems economically and quickly.
<b>CO – 3</b>	The project planning is a process is establishing all necessary documentation and structuring all your future activities.
<b>CO – 4</b>	To analyze software cost factors.
<b>CO – 5</b>	To estimate software maintenance cost.
<b>CO – 6</b>	To provide software required specification.
<b>CO – 7</b>	To analyze language and process for require specification.
<b>CO – 8</b>	To identify software design.
<b>CO – 9</b>	To analyze Different kinds of software based usages
<b>CO – 10</b>	To implement verification is the process of evaluating product.
<b>CO – 11</b>	To preserve the value of software over the time.

<b>CO NO</b>	<b>Course Outcomes PHP - HYPER TEXT PRE PROCESSOR - U3CCS17</b>
<b>CO – 1</b>	To introduce a scripting languages.
<b>CO – 2</b>	To study about php conditions, branches, loops, functions and user defined functions.
<b>CO – 3</b>	To implement arrays, strings and advanced data manipulation.
<b>CO – 4</b>	To introduce object oriented programming with php.
<b>CO – 5</b>	To understand the concept of inheritance.
<b>CO – 6</b>	Compare with SQL and MySQL.
<b>CO - 7</b>	To create, insert, update, delete the databases.
<b>CO - 8</b>	To examine the php validation with java script.
<b>CO - 9</b>	To analyze the session management.
<b>CO - 10</b>	To create form based HTTP authentication.
<b>CO - 11</b>	To learn about Error, debugging, and deploying reporting of php.

<b>CO NO</b>	<b>Course Outcomes TCP/IP PROGRAMMING-U3CCS13</b>
<b>CO – 1</b>	To understand the OSI/TCP/IP protocol suit
<b>CO – 2</b>	To know the delivery, forwarding, and Routing IP
<b>CO – 3</b>	Build an understanding of the Internet Protocol(IP), Internet Control Message Protocol(ICMP)
<b>CO – 4</b>	Ability to understand the Internet Group Management Protocol (IGMP).
<b>CO – 5</b>	To understand the concept of File Transfer Protocol(FTP &TFTP)
<b>CO – 6</b>	To understand Electronic Mail(SMTP,POP,IMAP)

<b>CO NO</b>	<b>Course Outcomes PROGRAMMING IN .NET-U3CCS16</b>
<b>CO – 1</b>	Demonstrate the knowledge of object oriented concepts.
<b>CO – 2</b>	To learn .Net framework overview.
<b>CO – 3</b>	To know the languages in .Net.
<b>CO – 4</b>	To understand the concept of Data types and Operators.
<b>CO – 5</b>	To enable the concept of database.
<b>CO – 6</b>	To analyze the features of ADO.NET.
<b>CO – 7</b>	To analyze ASP.NET classes and application.
<b>CO – 8</b>	To learn web form fundamentals.
<b>CO – 9</b>	To enable validation and rich controls.
<b>CO – 10</b>	To learn data list, data grid and repeaters.

<b>CO NO</b>	<b>Course Outcomes LAB – PHP HYPERTEXT PREPROCESSOR -U3CCSL12</b>
<b>CO – 1</b>	To understand PHP conditions and branches.
<b>CO – 2</b>	To learn arrays and regular expressions.
<b>CO – 3</b>	To inspect classes, objects and inheritance
<b>CO – 4</b>	To analyze MySQL command interpreter.
<b>CO – 5</b>	To study about the web databases.
<b>CO – 6</b>	To view validation and error reporting.
<b>CO – 7</b>	To monitor session management.
<b>CO – 8</b>	To provide authentication and security.
<b>CO – 9</b>	To afford error, debugging and deploying.
<b>CO – 10</b>	To examine reporting.

<b>CO NO</b>	<b>Course Outcomes LAB – .NET TECHNOLOGIES LAB-U3CCSL13</b>
<b>CO – 1</b>	To perform various string operation.
<b>CO – 2</b>	To implement classes, methods and properties.
<b>CO – 3</b>	To execute the program for exception handling.
<b>CO – 4</b>	To know about array.
<b>CO – 5</b>	To learn ASP.NET application.
<b>CO – 6</b>	Program using overriding, constructors in inheritance.

<b>CO NO</b>	<b>Course Outcomes MOBILE COMPUTING - U3ECS4</b>
<b>CO – 1</b>	Demonstrate the basic skills of cellular network design.
<b>CO – 2</b>	Apply the knowledge of mobile and wireless network.
<b>CO – 3</b>	To learn multiple access procedure.
<b>CO – 4</b>	To learn GSM (Global System for Mobile Communication) and GSM architecture.
<b>CO – 5</b>	To enable wireless transmission technology.
<b>CO – 6</b>	To analyze the features of blue tooth.
<b>CO – 7</b>	To understand the development of WATM (Wireless Asynchronous Transmission Mode).
<b>CO – 8</b>	To analyze the Goals of mobile IP.
<b>CO – 9</b>	To enable wireless mark-up language script.
<b>CO – 10</b>	To learn the architectures of wireless application protocol.

## M. Sc COMPUTER SCIENCE - SPCS

CO NO	Course Outcomes MATHEMATICAL FOUNDATION-P6CCS6
CO – 1	To learn about the logical operators.
CO – 2	Introduce concepts of mathematical logic for analyzing propositions.
CO – 3	Introduce the concepts of mathematical groups for analyzing definition and proving theorems.
CO – 4	To learn about the various groups.
CO – 5	Introduce the basic concepts of types of lattices for proving theorem.
CO – 6	Create the switching circuits.
CO – 7	To learn the conversion of unbalanced problem into balanced one.
CO – 8	Explain how the problem of transportation problem.
CO – 9	To learn about the game theory, solve the game using LP method.
CO – 10	To understand the game theory, where game theory can be used.

CO NO	Course Outcomes DIGITAL PRINCIPLES AND COMPUTER ORGANIZATION-P6CCS7
CO – 1	To learn about the different types of logic gates.
CO – 2	To analyze Half and Full Adder.
CO – 3	To understand the various types of Flip-Flops.
CO – 4	To enable the various types of shift registers.
CO – 5	To analyze various types of Counters.
CO – 6	To learn about the functional unit of a computer systems.
CO – 7	To enable interrupts and types.

<b>CO – 8</b>	To learn about the execution of a complete instruction.
<b>CO – 9</b>	To determine the Hardwired control.
<b>CO – 10</b>	To demonstrate the Microprocessor architectures.
<b>CO – 11</b>	To learn about the various types of addressing modes.

<b>CO NO</b>	<b>Course Outcomes RELATIONAL DATABASE MANAGEMENT SYSTEM-P6CCS4</b>
<b>CO – 1</b>	Explain about Types of Database Management Systems
<b>CO – 2</b>	Implement various Models like Hierarchical, Network and Relational.
<b>CO – 3</b>	To describe about Object Oriented Model and Object Relational Model
<b>CO – 4</b>	To recall the concept of various Normalization.
<b>CO – 5</b>	To interpret the basics of database, SQL, PL/SQL, forms and reports.
<b>CO – 6</b>	To utilize tables and execute different SQL queries.
<b>CO – 7</b>	To analyze the various PL/SQL concepts.
<b>CO – 8</b>	To evaluate interactive PL/SQL blocks, forms and reports
<b>CO – 9</b>	To develop real time database applications
<b>CO – 10</b>	To Interpret in detail about Cursors, Triggers, Procedures and Functions



<b>CO NO</b>	<b>Course Outcomes ADVANCED PROGRAMMING IN C - P6CCS8</b>
<b>CO – 1</b>	To understand the basic structure, data types, operators, and various control statements.
<b>CO – 2</b>	To analyze the arrays, pointers, functions, structures and unions.
<b>CO – 3</b>	To understand evaluate the file operations.
<b>CO – 4</b>	To understand the input and output operations.
<b>CO – 5</b>	To know the network programming.

<b>CO NO</b>	<b>Course Outcomes LAB –ADVANCED C PROGRAMMING - P6CCSL3</b>
<b>CO – 1</b>	To implement programs using input and output statements.
<b>CO – 2</b>	Programs using control, and conditional statements.
<b>CO – 3</b>	To create a program using files.
<b>CO – 4</b>	To create programs using various data structures, arrays using pointers.
<b>CO – 5</b>	To create graphics programs.
<b>CO – 6</b>	To understand and implement the redesigning keys.
<b>CO – 7</b>	To create menus with shortcut and interactivity.
<b>CO – 8</b>	To create cursors of various shapes.
<b>CO – 10</b>	To display texting, different orientation and forms.
<b>CO – 11</b>	To create any icon.

<b>CO NO</b>	<b>Course Outcomes LAB –ORACLE LAB - P6CCSL2</b>
<b>CO – 1</b>	Creating tables for different application using DDL.
<b>CO – 2</b>	To perform all DML functions.
<b>CO – 3</b>	To performing DCL functions.
<b>CO – 4</b>	To solve queries and functions.
<b>CO – 5</b>	To set operations (union, union all, intersect, and minus).
<b>CO – 6</b>	To solve join concepts.
<b>CO – 7</b>	To creating tables with integration constraints and domain.
<b>CO – 8</b>	To enable tables with security.
<b>CO – 10</b>	To creating data base objective using queries.
<b>CO – 11</b>	To create PL/SQL block using all the control statements.
<b>CO – 12</b>	To creating procedures, functions, packages, triggers for different applications.

<b>CO NO</b>	<b>Course Outcomes COMPUTER NETWORKS – P6ECS1</b>
<b>CO – 1</b>	To know about the uses of computer networks
<b>CO – 2</b>	To identify different components of network hardware software.
<b>CO – 3</b>	Enumerate the layers of the OSI/TCP/IP.
<b>CO – 4</b>	Ability to understand the different transmission, narrowband ISDN, broadband ISDN, Cellular radio.
<b>CO – 5</b>	To know the data link layer concepts, error detection, correction, elementary data link layer protocol, sliding window protocol.
<b>CO – 6</b>	Ability to understand the routing algorithms, transport layer concepts.
<b>CO – 7</b>	Analyse the application layer, network layer, network security, E-mail, WWW.

<b>CO NO</b>	<b>Course Outcomes OBJECT ORIENTED TECHNOLOGY AND DATA STRUCTURES-Q6CCS1</b>
<b>CO – 1</b>	To learn about operators, encapsulation, abstract and classes and object
<b>CO – 2</b>	To understand the concept of class hierarchy, polymorphism and their categories.
<b>CO – 3</b>	To discuss about data structure operation and algorithm.
<b>CO – 4</b>	To implement the concept of arrays.
<b>CO – 5</b>	To understand the sort operation.
<b>CO – 6</b>	To analyze the various searching concepts.
<b>CO – 7</b>	Ability to understand linked list.
<b>CO – 8</b>	To learn about stacks, queues and recursion.
<b>CO – 9</b>	To discuss the about trees and graphics.

<b>CO NO</b>	<b>Course Outcomes ADVANCED JAVA PROGRAMMING-Q6CCS7</b>
<b>CO – 1</b>	Interpret basic concepts of Object Oriented Programming and Java Programming Constructs like constants, variables, operators and the concepts of control statements
<b>CO – 2</b>	Develop the concepts of classes, objects, method overloading, inheritance, arrays, strings and vectors and Interfaces in Java
<b>CO – 3</b>	Build applications using Packages
<b>CO – 4</b>	Create the need the concepts of multi threading by using thread class and implementing runnable interface
<b>CO – 5</b>	Interpret the concepts of errors and exceptions, keywords that are used to manage Exceptions.
<b>CO – 6</b>	Design the concept of applets by how to create and run applets and Graphics programming by various classes in the graphics class.
<b>CO – 7</b>	Describe JSP Components, JSP Sessions and JSP Cookies
<b>CO – 8</b>	Inspect Handling Servlet get request, Servlet Post request and Servlet Cookies.
<b>CO – 9</b>	Create Servlet database Connectivity

<b>CO NO</b>	<b>Course Outcomes NETWORK SECURITY - Q6CCS9</b>
<b>CO – 1</b>	To learn the types of attacks.
<b>CO – 2</b>	To enable students to understand various cryptography techniques.
<b>CO – 3</b>	To learn about the DES method.
<b>CO – 4</b>	To learn about the AES method.
<b>CO – 5</b>	To learn about the RSA algorithm.
<b>CO – 6</b>	To learn about the digital signatures.
<b>CO – 7</b>	To enable students to understand the concept of secure socket layer (SSL).
<b>CO – 8</b>	To learn about the wireless application protocol (WAP).
<b>CO – 9</b>	To learn about the VPN (Virtual Private Network).
<b>CO – 10</b>	To learn about the Denial of service (DOS).

<b>CO NO</b>	<b>Course Outcomes SOFTWARE ENGINEERING-Q6CCS10</b>
<b>CO – 1</b>	To understand the software process and software process model.
<b>CO – 2</b>	To estimate the systematic approach to the development, operation, maintenance.
<b>CO – 3</b>	To analyze the computer based system.
<b>CO – 4</b>	To implement system modeling.
<b>CO – 5</b>	To encompasses the task that go into determining the needs or condition.
<b>CO – 6</b>	To implement building analysis model.
<b>CO – 7</b>	To analyze the design objectives are the functional and non-functional qualities of a design.
<b>CO – 8</b>	To transform the design model into functional software.
<b>CO – 9</b>	To identify the user interface design is to make the users interaction as simple and efficient as possible.
<b>CO – 10</b>	To evaluate work products such as requirements, design, user stories and code.

<b>CO NO</b>	<b>Course Outcome LAB- DATA STRUCTURE AND ALGORITHMS USING C++ - Q6CCSL4</b>
<b>CO - 1</b>	To create a program to add, delete, in single linked list, double linked list, circular linked list.
<b>CO - 2</b>	To create stack using pointer.
<b>CO - 3</b>	To implement queue using pointer.
<b>CO - 4</b>	To know linear searching and binary searching.
<b>CO - 5</b>	To implement various tree traversal using pointer.
<b>CO - 6</b>	To perform sorting techniques of numbers, character value and string.

<b>CO NO</b>	<b>Course Outcomes ADVANCED JAVA PROGRAMMING – Q6CCSL3</b>
<b>CO - 1</b>	To explain simple Object Oriented Programs using Java.
<b>CO - 2</b>	To Perform Arrays and Flow Control Statement.
<b>CO - 3</b>	To explain Run Time Exception and I/O Exception.
<b>CO - 4</b>	To describe Multithreading.
<b>CO - 5</b>	To inspect the usage of string operations.
<b>CO - 6</b>	To analyze about Java Packages.
<b>CO - 7</b>	To examine Java Interface
<b>CO - 8</b>	To create GUI component like Label, Check box, Menus and Text.
<b>CO - 9</b>	To implement event handling like Focus, Key, Paint, Text, Mouse and Windows
<b>CO - 10</b>	To interpret about Java Applet and Java Data Base Connectivity

<b>CO NO</b>	<b>Course Outcomes AUTOMATA THEORY-Q6ECS2</b>
<b>CO – 1</b>	To learn about strings, alphabet, language of a computer system.
<b>CO – 2</b>	To define the four classes of grammar.
<b>CO – 3</b>	To introduce the concepts of FA and DFA for analyzing state table and state diagrams.
<b>CO – 4</b>	To create the conversion of NDFSA to DFSA.
<b>CO – 5</b>	To prove the properties of languages, grammars and automata with rigorously formal mathematical methods.
<b>CO – 6</b>	To design automata regular grammars accepting certain language.
<b>CO – 7</b>	To explain and manipulate the different concept in automata theory and formal languages such as formal proofs.
<b>CO – 8</b>	To transform between equivalent deterministic and non deterministic finite automata theory and regular expression.
<b>CO – 9</b>	To explain the power and the limitations of regular languages and context free languages.
<b>CO – 10</b>	To describe language accepted by an automata or generated by a CFG, regular expression.

<b>CO NO</b>	<b>Course Outcomes COMPILER DESIGN-R6CCS11</b>
<b>CO – 1</b>	To Summarize the basic operations of a compiler.
<b>CO – 2</b>	Make use of parsing techniques for traversing program statement
<b>CO – 3</b>	To Examine the representation of grammar and intermediate code
<b>CO – 4</b>	Appraise the code optimization techniques
<b>CO – 5</b>	To Design the steps for constructing a compiler with necessary tools
<b>CO – 6</b>	To Describe in detail about the parsing technique.
<b>CO – 7</b>	To Discuss with examples LR, SLR and LALR Parsing Technique
<b>CO – 8</b>	To Interpret with examples various types of notations , quadruples, triples and postfix translations
<b>CO – 9</b>	To Discuss error detection and error recovery.
<b>CO – 10</b>	Assess source of optimization and loop optimization

<b>CO NO</b>	<b>Course Outcomes MOBILE COMPUTING-R6CCS18</b>
<b>CO – 1</b>	To understand the fundamentals of wireless communication.
<b>CO – 2</b>	To analyze security energy, efficiency, mobility and their unique characteristics.
<b>CO – 3</b>	To learn multiple access procedures.
<b>CO – 4</b>	To enable internet protocol versions.
<b>CO – 5</b>	To understand GSM (Global System for Mobile Communication) communication and architecture.
<b>CO – 6</b>	To analyze the value added service through SMS.
<b>CO – 7</b>	To enable data services in GPRS.
<b>CO – 8</b>	To learn GPRS (General Pocket Radio Service) network operations.
<b>CO – 9</b>	To understand WAP (Wireless Application Protocol).
<b>CO – 10</b>	To learn CDMA (Code-Division Multiple Access) based technology.

<b>CO NO</b>	<b>Course Outcomes DIGITAL IMAGE PROCESSING-R6CCS14</b>
<b>CO – 1</b>	To understand the need for image transform and their properties.
<b>CO – 2</b>	To learn fundamental steps in DLP (Digital Light Processing).
<b>CO – 3</b>	To enable light and the electromagnetic spectrum.
<b>CO – 4</b>	To analyze the linear and non-linear operations.
<b>CO – 5</b>	To develop any image processing application and process.
<b>CO – 6</b>	To understand spatial enhancement methods.
<b>CO – 7</b>	To understand the rapid advances in machine vision techniques.
<b>CO – 8</b>	To learn color image processing.
<b>CO – 9</b>	To learn different techniques for the enhancement of image compression.
<b>CO – 10</b>	To learn elements of information theory.

<b>CO NO</b>	<b>Course Outcomes DATA MINING AND WARE HOUSING-R6CCS17</b>
<b>CO – 1</b>	To understand data mining and its functionality.
<b>CO – 2</b>	To learn data warehouse and data warehouse architecture.
<b>CO – 3</b>	To enable data from data warehouse to data mining
<b>CO – 4</b>	To analyze data mining primitives and GUI(Graphical User Interface)
<b>CO – 5</b>	To learn mining descriptive statistical measures in large databases.
<b>CO – 6</b>	To enable association rule mining.
<b>CO – 7</b>	To understand Bayesian classification.
<b>CO – 8</b>	To enable cluster analysis and categorization major clustering methods.
<b>CO – 9</b>	To learn partitioning and hierarchical methods.
<b>CO –10</b>	To enable mining spatial databases.

<b>CO NO</b>	<b>Course Outcomes LINUX PROGRAMMING – R6CCSL5</b>
<b>CO – 1</b>	To implement attributes of a given file
<b>CO – 2</b>	To find the number of users who have logged.
<b>CO – 3</b>	To execute various string operations.
<b>CO – 4</b>	To execute the comparison of files.
<b>CO – 5</b>	To learn about communication command.
<b>CO – 6</b>	To create and append a file.



<b>CO NO</b>	<b>Course Outcomes .NET TECHNOLOGIES LAB – R6CCSL6</b>
<b>CO – 1</b>	To perform various string operation.
<b>CO – 2</b>	To implement classes, methods and properties.
<b>CO – 3</b>	To execute the program for exception handling.
<b>CO – 4</b>	To know about array.
<b>CO – 5</b>	To learn ASP.NET application.
<b>CO – 6</b>	Program using overriding, constructors in inheritance.

<b>CO NO</b>	<b>Course Outcomes DIGITAL IMAGE PROCESSING USING MAT – R6CCSL7</b>
<b>CO – 1</b>	It is designed to give students a basic understanding of MAT LAB including popular tool box.
<b>CO – 2</b>	To give interactive lectures and sample MAT LAB problems.
<b>CO – 3</b>	Give the operation to implement problem.
<b>CO – 4</b>	To learn compression technique.
<b>CO – 5</b>	To analyze various image performance.
<b>CO – 6</b>	To execute retrieving images.

<b>CO NO</b>	<b>Course Outcomes OPERATING SYSTEMS - R6ECS5</b>
<b>CO – 1</b>	To understand Operating System and its types.
<b>CO – 2</b>	To learn input output structures and hardware protection.
<b>CO – 3</b>	To enable system components and system calls.
<b>CO – 4</b>	To determine process scheduling.
<b>CO – 5</b>	To learn Threads and Thread issues.
<b>CO – 6</b>	To enable scheduling algorithms and algorithm evaluation.
<b>CO – 7</b>	To learn critical section problem and critical regions.
<b>CO – 8</b>	To develop a description of deadlocks which prevents sets of concurrent process.
<b>CO – 9</b>	To enable memory management.
<b>CO – 10</b>	To learn file system implementation.

<b>CO NO</b>	<b>Course Outcomes PHP HYPERTEXT PREPROCESSOR -S6CCS1</b>
<b>CO – 1</b>	To understand PHP conditions and branches.
<b>CO – 2</b>	To learn arrays and regular expressions.
<b>CO – 3</b>	To inspect classes, objects and inheritance
<b>CO – 4</b>	To analyze MySQL command interpreter.
<b>CO – 5</b>	To study about the web databases.
<b>CO – 6</b>	To view validation and error reporting.
<b>CO – 7</b>	To monitor session management.
<b>CO – 8</b>	To provide authentication and security.
<b>CO – 9</b>	To afford error, debugging and deploying.
<b>CO – 10</b>	To examine reporting.

<b>CO NO</b>	<b>Course Outcomes ENTERPRISE RESOURCE PLANNING-S6CCS2</b>
<b>CO – 1</b>	To learn about the benefits of ERP.
<b>CO – 2</b>	To understand the various ERP related technologies like BPR, OLAP, SCM.
<b>CO – 3</b>	To learn about the finance module.
<b>CO – 4</b>	To discover sales and distribution module.
<b>CO – 5</b>	To enable students to understand the ERP implementation life cycle.
<b>CO – 6</b>	To find out vendors, consultants.
<b>CO – 7</b>	To learn SAP R/3 architecture.
<b>CO – 8</b>	To understand an oracle corporation.
<b>CO – 9</b>	To analyze ERP and internet.
<b>CO – 10</b>	To learn about the future directions in ERP.

<b>CO NO</b>	<b>Course Outcomes LAB – PHP HYPERTEXT PREPROCESSOR - S6CCSL1</b>
<b>CO – 1</b>	To understand PHP conditions and branches.
<b>CO – 2</b>	To learn arrays and regular expressions.
<b>CO – 3</b>	To inspect classes, objects and inheritance
<b>CO – 4</b>	To analyze MySQL command interpreter.
<b>CO – 5</b>	To study about the web databases.
<b>CO – 6</b>	To view validation and error reporting.
<b>CO – 7</b>	To monitor session management.
<b>CO – 8</b>	To provide authentication and security.
<b>CO – 9</b>	To afford error, debugging and deploying.
<b>CO – 10</b>	To examine reporting.

<b>CO NO</b>	<b>Course Outcomes RESEARCH – I - PROJECT VIVA – VOCE - S6ECSP</b>
<b>CO – 1</b>	Students must spend at least three months (90 days) in industry, attendance certificate is must.
<b>CO – 2</b>	Project confirmation letter is send to the department within a month.
<b>CO – 3</b>	Three internal viva-voce will be arranged, students may attend any two but the final internal viva-voce is must.
<b>CO – 4</b>	Students can do the project at home institution also.

# DEPARTMENT OF INFORMATION TECHNOLOGY

## B.Sc INFORMATION TECHNOLOGY - SUIT

PO NO	Programme Outcomes
PO – 1	The knowledge of computing in IT Industry.
PO – 2	The Graduates can glow in the areas such as Web Designing, Database Management, Networking and Digital Marketing.
PO – 3	Apply Communication and Technology Skills effectively in multidisciplinary. Engage them to use the current Technology and Software tools.
PO – 4	Execute the Database Activity and handle the Queries related to the User needs.
PO – 5	Attitude is created to integrate the IT Solution such as Analysis, Design, System development and Implementation.

PSO NO	Programme Specific Outcomes
PSO – 1	Convert their Innovative Ideas into Software Solutions.
PSO – 2	Enrich their Communication and Technology Skill.
PSO – 3	They can endeavor as Programmer, Web Developer, System Analyst, Project Manager and Mobile Application Developer.
PSO – 4	Can become an Entrepreneur and commence a Company.
PSO – 5	Innovate new ideas and solutions to Real time Problems.

<b>CO NO</b>	<b>Course Outcomes PRINCIPLES OF INFORMATION TECHNOLOGY – P3CIT3</b>
<b>CO – 1</b>	Understand the basic components of Computer system & classification.
<b>CO – 2</b>	Gain knowledge about loaders, linkers and Algorithms.
<b>CO – 3</b>	Apply and use MS-WORD packages.
<b>CO – 4</b>	Work with MS-EXCEL and formatting Worksheets.
<b>CO – 5</b>	Design Power point presentation

<b>CO NO</b>	<b>Course Outcomes PROGRAMMING IN C – P3CIT2</b>
<b>CO – 1</b>	Understand the concept of basic Program Structure, data types and Operators.
<b>CO – 2</b>	Analyze looping statements and Decision Making.
<b>CO – 3</b>	Implement arrays and strings.
<b>CO – 4</b>	Apply the concept of Functions, Structures and Unions.
<b>CO – 5</b>	Learn about pointers and I/O Operation of Files.

<b>CO NO</b>	<b>Course Outcomes DIGITAL PRINCIPLES – P3AIT3</b>
<b>CO – 1</b>	Manipulate the number system, Binary, Decimal, Octal and Hexadecimal.
<b>CO – 2</b>	Illustrate the logic gates and Universal Gates.
<b>CO – 3</b>	Construct the Boolean algebra and Karnaugh Map.
<b>CO – 4</b>	Understand the concept of adder, subtractor and register.
<b>CO – 5</b>	Acquire knowledge on Counters and Register.

<b>CO NO</b>	<b>Course Outcomes OFFICE APPLICATION LAB – P3CITL1</b>
<b>CO – 1</b>	Creating Tables, various Documents,
<b>CO – 2</b>	Perform Mail merge Operations.
<b>CO – 3</b>	Worksheet Manipulation using Formulas.
<b>CO – 4</b>	Creating PowerPoint Slides in MS – POWERPOINT
<b>CO – 5</b>	Connecting MS Access Database

<b>CO NO</b>	<b>Course Outcomes PROGRAMMING IN C LAB – P3CITL2</b>
<b>CO – 1</b>	Develop programs using Operators and Datatypes.
<b>CO – 2</b>	Handle Decision making and looping statements.
<b>CO – 3</b>	Implementing arrays and string concepts
<b>CO – 4</b>	Implementing functions and structures
<b>CO – 5</b>	Implementing files.

<b>CO NO</b>	<b>Course Outcomes PROGRAMMING IN C++– Q3CIT5</b>
<b>CO – 1</b>	Read and understand the concept of Object oriented in C++.
<b>CO – 2</b>	Apply conditional and control Statements.
<b>CO – 3</b>	Analyze constructor, destructor and Overloading concepts.
<b>CO – 4</b>	Use various types of Inheritance.
<b>CO – 5</b>	Apply File concept in C++ program.

<b>CO NO</b>	<b>Course Outcomes UNIX – Q3CIT6</b>
<b>CO – 1</b>	Getting knowledge about Unix commands.
<b>CO – 2</b>	Handling files and directories.
<b>CO – 3</b>	Discuss about Basic File Attributes.
<b>CO – 4</b>	Develop program using Vi-editors
<b>CO – 5</b>	Explain various process and filters.

<b>CO NO</b>	<b>Course Outcomes STATISTICS – Q3AIT4</b>
<b>CO – 1</b>	Measures of central tendency value
<b>CO – 2</b>	Measures of Dispersion
<b>CO – 3</b>	Find variation between the variables using correlation and regression.
<b>CO – 4</b>	Understand Regression Analysis
<b>CO – 5</b>	Comparing values using index numbers.

<b>CO NO</b>	<b>Course Outcomes PROGRAMMING IN C++ LAB – Q3CITL4</b>
<b>CO – 1</b>	Develop program in OOPs based concepts.
<b>CO – 2</b>	Implement inheritance concepts.
<b>CO – 3</b>	Implementing Constructors & Destructors
<b>CO – 4</b>	Implementing Operator overloading and function overloading
<b>CO – 5</b>	Create, open , close using files

<b>CO NO</b>	<b>Course Outcomes UNIX LAB – Q3CITL5</b>
<b>CO – 1</b>	Implement basic Unix commands.
<b>CO – 2</b>	Implementing Directory commands.
<b>CO – 3</b>	Implementing Filter commands
<b>CO – 4</b>	Developing the program using vi Editors
<b>CO – 5</b>	Create program for shell programming.

<b>CO NO</b>	<b>Course Outcomes DATA BASE MANAGEMENT SYSTEM – R3CIT6</b>
<b>CO – 1</b>	Understand about types of database, services, SDLC and DDLC.
<b>CO – 2</b>	Analyze ER-Diagram and normalization concepts, relational algebra and relational calculus.
<b>CO – 3</b>	Create tables, views and indexes.
<b>CO – 4</b>	Implement the concept of Trigger, cursor.
<b>CO – 5</b>	Analyze the concept of backup & recovery.

<b>CO NO</b>	<b>Course Outcomes COMPUTER ORGANIZATION – R3CIT7</b>
<b>CO – 1</b>	Learn the types of gates and flip-flops and simplifying arithmetic and logic micro operations.
<b>CO – 2</b>	Explain basic computer organization and Instruction.
<b>CO – 3</b>	Analyze various types of organization and pipeline.
<b>CO – 4</b>	Develop algorithm for addition, Subtraction, multiplication and division.
<b>CO – 5</b>	Describe about memory and its types.



<b>CO NO</b>	<b>Course Outcomes FINANCIAL AND MANAGEMENT ACCOUNTING – R3AIT4</b>
<b>CO – 1</b>	Prepare prospective managers with a skill to understand the basic principles of Financial and Management Accounting.
<b>CO – 2</b>	Utilize accounting information in solving the business problems and taking scientific decisions.
<b>CO – 3</b>	Cost data helps to analyze and ascertain the cost of product and how to develop targets.
<b>CO – 4</b>	Preparing Fund flow &Cash flow statements
<b>CO – 5</b>	Explain financial tools and techniques which can be used to help firms maximize value by improving decisions relating budget.

<b>CO NO</b>	<b>Course Outcomes ORACLE LAB – R3CITL4</b>
<b>CO – 1</b>	Develop DDL, DML and DCL Commands.
<b>CO – 2</b>	Create Tables, Views.
<b>CO – 3</b>	Implement cursor and Triggers.
<b>CO – 4</b>	Apply Join concepts.
<b>CO – 5</b>	Develop PL/SQL programs.

<b>CO NO</b>	<b>Course Outcomes TALLY LAB – R3AITL4</b>
<b>CO – 1</b>	Creation and maintenance of company ledgers.
<b>CO – 2</b>	Preparation of fund and cash flow statements.
<b>CO – 3</b>	Preparation of Budget
<b>CO – 4</b>	Analyzing Accounts and reporting
<b>CO – 5</b>	Preparation of Cast Category summary

<b>CO NO</b>	<b>Course Outcomes WEB TECHNOLOGY – S3CIT7</b>
<b>CO – 1</b>	Understand the concept of Internet and various protocols.
<b>CO – 2</b>	Implement HTML Tags and Style Sheet.
<b>CO – 3</b>	Discuss about Java Scripts and Objects
<b>CO – 4</b>	Analyze about VBScripts.
<b>CO – 5</b>	Gain Knowledge about ASP, Cookies , Servers and Animation Technology

<b>CO NO</b>	<b>Course Outcomes JAVA PROGRAMMING – S3CIT8</b>
<b>CO – 1</b>	Gain the knowledge of object oriented programming.
<b>CO – 2</b>	Create classes and objects.
<b>CO – 3</b>	Implement inheritance and polymorphism.
<b>CO – 4</b>	Develop applet programming and AWT.
<b>CO – 5</b>	Explain various database connections and connect database to java application. Understand the basic concept of networks.

<b>CO NO</b>	<b>Course Outcomes OPERATIONAL RESEARCH – S3AIT5</b>
<b>CO – 1</b>	Convert problems into mathematical model
<b>CO – 2</b>	Solve Transportation Problems
<b>CO – 3</b>	Solve Assignment & Travelling Salesman Problems
<b>CO – 4</b>	Understand the usage of Game Theory
<b>CO – 5</b>	Formulate and solve problems as Networks and Graphs

<b>CO NO</b>	<b>Course Outcomes WEB TECHNOLOGY LAB – S3CITL7</b>
<b>CO – 1</b>	Develop web page using basic html tags.
<b>CO – 2</b>	Developing web page using Audio and Video tags
<b>CO – 3</b>	Displaying the images in webpage
<b>CO – 4</b>	Create a website using forms and frames.
<b>CO – 5</b>	Manipulate a program using scripting Languages.

<b>CO NO</b>	<b>Course Outcomes JAVA PROGRAMMING LAB – S3CITL6</b>
<b>CO – 1</b>	Develop a program for method and Constructor overloading.
<b>CO – 2</b>	Implement the concept of inheritance, Interface and packages.
<b>CO – 3</b>	Implementing the concept of interface and packages.
<b>CO – 4</b>	Implementing Exception handling functions
<b>CO – 5</b>	Design applet windows.

<b>CO NO</b>	<b>Course Outcomes COMPUTER GRAPHICS – T3CIT11</b>
<b>CO – 1</b>	Understand the application of computer graphics, display devices, input and output devices.
<b>CO – 2</b>	Handling character generations and bundled attributes.
<b>CO – 3</b>	Apply 2d transformation techniques. Perform various clipping algorithms.
<b>CO – 4</b>	Explain different display methods and 3D object representation.
<b>CO – 5</b>	Display different color models.

<b>CO NO</b>	<b>Course Outcomes SOFTWARE ENGINEERING – T3CIT12</b>
<b>CO – 1</b>	Understand the software engineering terms and planning of software project.
<b>CO – 2</b>	Estimate various COST models.
<b>CO – 3</b>	Analyze software requirements and designs.
<b>CO – 4</b>	Handling verification and validation techniques.
<b>CO – 5</b>	Implementing testing and debugging.

<b>CO NO</b>	<b>Course Outcomes DATA STRUCTURE – T3CIT14</b>
<b>CO – 1</b>	Understand the basic concepts and algorithmic notations.
<b>CO – 2</b>	Implementing strings and arrays.
<b>CO – 3</b>	Illustrate about linked list and memory allocation.
<b>CO – 4</b>	Handling Stacks and Queues.
<b>CO – 5</b>	Discuss about trees.

<b>CO NO</b>	<b>Course Outcomes VB.NET – T3CIT14</b>
<b>CO – 1</b>	Understand the .Net framework, datatype, operators and console application.
<b>CO – 2</b>	Implement control statements and arrays.
<b>CO – 3</b>	Work with procedure and structures, message boxes and File concepts.
<b>CO – 4</b>	Create and handle menus, dialog boxes and OOPs.
<b>CO – 5</b>	Connect database and handle ADO.NET.

<b>CO NO</b>	<b>Course Outcomes MULTIMEDIA – T3EIT6</b>
<b>CO – 1</b>	Explain the concepts of multimedia and computer architecture.
<b>CO – 2</b>	Illustrate text and graphics.
<b>CO – 3</b>	Manage digital audios and videos.
<b>CO – 4</b>	Work with product design and authoring tools.
<b>CO – 5</b>	Gain the concept of web page development and browsers.

<b>CO NO</b>	<b>Course Outcomes DATA STRUCTURE LAB – T3CITL8</b>
<b>CO – 1</b>	Develop the program for linear array.
<b>CO – 2</b>	Implement PUSH, POP operations using stack.
<b>CO – 3</b>	Implement Insertion, Deletion using Linked List.
<b>CO – 4</b>	Implementation of Circular queue
<b>CO – 5</b>	Demonstrate a Tree structure.

<b>CO NO</b>	<b>Course Outcomes VB.NET LAB – T3CITL9</b>
<b>CO – 1</b>	Develop programs for console applications.
<b>CO – 2</b>	Create programs for Windows applications.
<b>CO – 3</b>	Developing programs using constructors, class events
<b>CO – 4</b>	Developing programs using windows form controls
<b>CO – 5</b>	Connect VB.NET application with database.

<b>CO NO</b>	<b>Course Outcomes COMPUTER NETWORK – U3CIT15</b>
<b>CO – 1</b>	Illustrate about network architecture and OSI models.
<b>CO – 2</b>	Explain various Topologies.
<b>CO – 3</b>	Discuss network layers and routing algorithms.
<b>CO – 4</b>	Analyze transport layer.
<b>CO – 5</b>	Establishing presentation layer and cryptographic algorithms.

<b>CO NO</b>	<b>Course Outcomes OPERATING SYSTEM – U3CIT17</b>
<b>CO – 1</b>	Understanding the basic types of OS and system structure.
<b>CO – 2</b>	Analyze various scheduling algorithms.
<b>CO – 3</b>	Apply various concept of synchronization, deadlock.
<b>CO – 4</b>	Handling memory management and file system interface.
<b>CO – 5</b>	Managing I/O systems and MASS storage system.

<b>CO NO</b>	<b>Course Outcomes PHP – U3EIT14</b>
<b>CO – 1</b>	Understand the fundamental of PHP, data types and operators.
<b>CO – 2</b>	Explain conditional and control statements.
<b>CO – 3</b>	Handle Date, Math, String, Array Built in Function
<b>CO – 4</b>	Create session and cookies.
<b>CO – 5</b>	Connect PHP with MYSQL database.

<b>CO NO</b>	<b>Course Outcomes PHP &amp; MYSQL LAB – U3EITL2</b>
<b>CO – 1</b>	Develop program using PHP looping statements.
<b>CO – 2</b>	Implement PHP library functions.
<b>CO – 3</b>	Create program using session and cookies.
<b>CO – 4</b>	Creating applications using PHP
<b>CO – 5</b>	Connect application with MySQL database.

<b>CO NO</b>	<b>Course Outcomes DIGITAL IMAGEPROCESSING USING MATLAB – U3CITL1</b>
<b>CO – 1</b>	Develop program for Gray Scale Image.
<b>CO – 2</b>	Construct Coding for conversion between color spaces.
<b>CO – 3</b>	Develop program for Edge detection
<b>CO – 4</b>	Develop programs for Color images
<b>CO – 5</b>	Develop program using image segmentation.

<b>CO NO</b>	<b>Course Outcomes PROJECT – U3EITP</b>
<b>CO – 1</b>	Encourage students to apply their subject knowledge gained in the degree course.
<b>CO – 2</b>	Sharpen students intellectual qualities like Programming skills, analytical abilities, Communication skills
<b>CO – 3</b>	Develop skills on Testing, Debugging and report generation.
<b>CO – 4</b>	Prepare students for their Professional world.
<b>CO – 5</b>	Encourage students to apply their subject knowledge gained in the degree course.

## M.Sc INFORMATION TECHNOLOGY - SPIT

PO NO	Programme Outcomes
PO – 1	Use and apply current technical concepts and practices in the core information technologies of Networking, Data management, Software engineering, Computer security.
PO – 2	Demonstrate a deep understanding of the IT methodologies and frameworks.
PO – 3	Effectively integrate IT – based solutions into the user environment.
PO – 4	Develop and implement optimal solutions to complex computing problems using industry-recognized best practices and standards.
PO – 5	Apply ethical decision making in the development, implementation and management of IT systems

PSO NO	Programme Specific Outcomes
PSO – 1	Understand the concept and applications like Web designing and development, Network and Communication technologies, Mobile application development
PSO – 2	Enrich Communication and Technological skills.
PSO – 3	Design, develop and test software systems for world – wide network of computers to provide solutions to real world problem.
PSO – 4	Understand the technological developments in the usage of modern design and development tools to analyse and design a variety of applications.
PSO – 5	Competent and complete software professional to meet the requirement of Corporate world and Industry Standard.



<b>CO NO</b>	<b>Course Outcomes PRINCIPLES OF INFORMATION TECHNOLOGY – P6CIT9</b>
<b>CO – 1</b>	Gain the knowledge about Classification of Computers and Number System.
<b>CO – 2</b>	Discuss about Memory, Processing Units and S/W Development.
<b>CO – 3</b>	Manage DBMS and Telecommunication.
<b>CO – 4</b>	Understand about the Security, Multimedia and Virtual Reality.
<b>CO – 5</b>	Analyze the New Technology in IT.

<b>CO NO</b>	<b>Course Outcomes PROGRAMMING IN C AND C++ – P6CIT10</b>
<b>CO – 1</b>	Learn the information about C Datatypes, Operators, Input and Output function.
<b>CO – 2</b>	Illustrate branching statements and function.
<b>CO – 3</b>	Analyze Array, Pointer, Structure and Union.
<b>CO – 4</b>	Implement the concept of Constructor, Destructors, Overloading and Inheritance.
<b>CO – 5</b>	Handling Virtual Function, Exception and I/O in C++.

<b>CO NO</b>	<b>Course Outcomes RELATIONAL DATA BASE MANAGEMENT SYSTEM – P6CIT12</b>
<b>CO – 1</b>	Acquire knowledge about RDBMS concepts and database design.
<b>CO – 2</b>	Implement and work with oracle tables.
<b>CO – 3</b>	Manipulate arithmetic operations, functions, joins and set operations.
<b>CO – 4</b>	Understand the fundamentals of PL/SQL, cursors and exceptions.
<b>CO – 5</b>	Analyze the PL/SQL procedure, packages and triggers.

<b>CO NO</b>	<b>Course Outcomes OPERATING SYSTEM – P6CIT11</b>
<b>CO – 1</b>	Identify the different OS structure.
<b>CO – 2</b>	Develop process models and compare different scheduling algorithms.
<b>CO – 3</b>	Justify the IPC problems in Threads.
<b>CO – 4</b>	Managing memory allocation and resource allocation using deadlocks.
<b>CO – 5</b>	Introducing the multimedia OS and disk scheduling for media files. Learn the multiprocessor types and its scheduling.

<b>CO NO</b>	<b>Course Outcomes QUANTITATIVE METHODS – P6CIT8</b>
<b>CO – 1</b>	Introduce the concept of Statistics & Classification
<b>CO – 2</b>	Understand Central tendency & Dispersion
<b>CO – 3</b>	Understand Procedure for testing of hypothesis I
<b>CO – 4</b>	Understand Procedure for testing of hypothesis II
<b>CO – 5</b>	Understand Correlation & Regression

<b>CO NO</b>	<b>Course Outcomes PROGRAMMING IN C &amp; C++ LAB – P6CITL5</b>
<b>CO – 1</b>	Develop programs in Function and Arrays.
<b>CO – 2</b>	Implement Structure and Union.
<b>CO – 3</b>	Construct program using Inheritance
<b>CO – 4</b>	Implementing Constructors & Destructors, Overloading
<b>CO – 5</b>	Implementing Exception Handling in C++.

<b>CO NO</b>	<b>Course Outcomes ORACLE LAB – P6CITL4</b>
<b>CO – 1</b>	Create different types of query
<b>CO – 2</b>	Writing queries and subqueries using Joins and Set Operations.
<b>CO – 3</b>	Implement Cursor & Exceptions.
<b>CO – 4</b>	Develop PL/SQL programs using Triggers
<b>CO – 5</b>	Develop PL/SQL programs using Procedures, Functions and Packages

<b>CO NO</b>	<b>Course Outcomes DATA STRUCTURES AND ALGORITHMS – Q6CIT13</b>
<b>CO – 1</b>	Understand about Data structure Operation and Algorithm.
<b>CO – 2</b>	Develop the knowledge on Arrays and Strings.
<b>CO – 3</b>	Analyze about Linked lists, Pointer.
<b>CO – 4</b>	Handle about Stack and Queue
<b>CO – 5</b>	Discuss about Trees in Data Structure.

<b>CO NO</b>	<b>Course Outcomes WEB TECHNOLOGY – Q6CIT14</b>
<b>CO – 1</b>	Design web programs using HTML tags.
<b>CO – 2</b>	Understand the basic concepts CSS & java script.
<b>CO – 3</b>	Become familiar with document object model.
<b>CO – 4</b>	Gain knowledge about ASP.Net and controls.
<b>CO – 5</b>	Work with OLEDB Connection Objects.

<b>CO NO</b>	<b>Course Outcomes DATA COMMUNICATIONS AND NETWORKING – Q6CIT15</b>
<b>CO – 1</b>	Categorize the network model and its structure.
<b>CO – 2</b>	Learn TCP/IP protocol suite and transmission media.
<b>CO – 3</b>	Detect & correct errors in various layers.
<b>CO – 4</b>	Connecting in LAN with routing protocol.
<b>CO – 5</b>	Transfer file in internet and web services.

<b>CO NO</b>	<b>Course Outcomes COMPILER DESIGN – Q6CIT16</b>
<b>CO – 1</b>	Introducing the concept of Compilers and Translators.
<b>CO – 2</b>	Understanding the basic parsing techniques
<b>CO – 3</b>	Explain the automatic construction of efficient parser.
<b>CO – 4</b>	Discuss about syntax directed translation.
<b>CO – 5</b>	Analyze about Symbol Tables, Error Detection and Recovery.

<b>CO NO</b>	<b>Course Outcomes RESOURCE MANAGEMENT TECHNIQUE – Q6EIT3</b>
<b>CO – 1</b>	Convert problems into mathematical model
<b>CO – 2</b>	Solve Transportation Problems
<b>CO – 3</b>	Solve Assignment & Travelling Salesman Problems
<b>CO – 4</b>	Understand the usage of Game Theory
<b>CO – 5</b>	Formulate and solve problems as Networks and Graphs

<b>CO NO</b>	<b>Course Outcomes DATA STRUCTURE LAB – Q6CITL7</b>
<b>CO – 1</b>	Illustrate the concept of structure and pointers.
<b>CO – 2</b>	Implement the coding using Linked List.
<b>CO – 3</b>	Developing Programs using Stack concepts.
<b>CO – 4</b>	Develop program using Queue concept.
<b>CO – 5</b>	Develop program using Tree concept.

<b>CO NO</b>	<b>Course Outcomes WEB TECHNOLOGY LAB – Q6CITL8</b>
<b>CO – 1</b>	Create web page using HTML Tag.
<b>CO – 2</b>	Implement Cascading Style Sheet.
<b>CO – 3</b>	Create web page using Audio & Video Tag.
<b>CO – 4</b>	Create a website using forms and frames.
<b>CO – 5</b>	Develop ASP.Net Programs.

<b>CO NO</b>	<b>Course Outcomes ADVANCED JAVA – R6CIT20</b>
<b>CO – 1</b>	Understand the basics of Java programming.
<b>CO – 2</b>	Understand about Interfaces & Packages
<b>CO – 3</b>	Understanding the concepts of Threads, Applets & I/O files
<b>CO – 4</b>	Learning the importance of networking in java.
<b>CO – 5</b>	Gain knowledge about JFC, JSP and Servlets.

<b>CO NO</b>	<b>Course Outcomes MULTIMEDIA – R6CIT18</b>
<b>CO – 1</b>	Presentation of media content and its S/W, H/W requirements.
<b>CO – 2</b>	Developing basic steps for processing images.
<b>CO – 3</b>	Transmitting audio with audio processing s/w.
<b>CO – 4</b>	Techniques of video editing and video.
<b>CO – 5</b>	Learn about Animation and Special effects.

<b>CO NO</b>	<b>Course Outcomes SOFTWARE ENGINEERING – R6CIT19</b>
<b>CO – 1</b>	Learn the basic concepts of SE.
<b>CO – 2</b>	Estimate the cost factors and techniques.
<b>CO – 3</b>	Analyze the software design & system testing.
<b>CO – 4</b>	Configure the software maintenance.
<b>CO – 5</b>	Compare Reactive Vs Proactive risk strategies

<b>CO NO</b>	<b>Course Outcomes .NET PROGRAMMING – R6CIT17</b>
<b>CO – 1</b>	Understand the .Net framework, datatype, operators and console application.
<b>CO – 2</b>	Implement OOPs concepts.
<b>CO – 3</b>	Work with Delegates, Events and Exception Handling
<b>CO – 4</b>	Manage different types of basic control, state and validator.
<b>CO – 5</b>	Connect Front End with Ado.Net, Web Application and perform File uploading, Ad Rotator and display calendar

<b>CO NO</b>	<b>Course Outcomes CLOUD COMPUTING – R6EIT7</b>
<b>CO – 1</b>	Understanding the principles of Cloud computing.
<b>CO – 2</b>	Manage Cloud Services.
<b>CO – 3</b>	Exploring Event Management
<b>CO – 4</b>	Evaluating cloud storing and sharing files
<b>CO – 5</b>	Collaborating cloud via web based communication tools.

<b>CO NO</b>	<b>Course Outcomes JAVA NETWORKING LAB– R6CITL8</b>
<b>CO – 1</b>	Create a program using string function.
<b>CO – 2</b>	Design the Applet program.
<b>CO – 3</b>	Construct the Coding for swing concept.
<b>CO – 4</b>	Develop a webpage using JSP.
<b>CO – 5</b>	Implement RMI concept.

<b>CO NO</b>	<b>Course Outcomes .NET PROGRAMMING LAB – R6CITL9</b>
<b>CO – 1</b>	Develop a program for console applications.
<b>CO – 2</b>	Create a program for Windows applications.
<b>CO – 3</b>	Connect VB.NET application with database.
<b>CO – 4</b>	Create a web Application using basic ASP.Net Controls.
<b>CO – 5</b>	Develop a program using Exception Handling.

<b>CO NO</b>	<b>Course Outcomes DIGITAL IMAGE PROCESSING – S6CIT5</b>
<b>CO – 1</b>	Components of digital image processing.
<b>CO – 2</b>	Introducing Image fundamentals.
<b>CO – 3</b>	Understanding the Mathematical Tools used in DIP.
<b>CO – 4</b>	Discuss the color fundamentals.
<b>CO – 5</b>	Analyze Image compression.

<b>CO NO</b>	<b>Course Outcomes ORGANIZATIONAL BEHAVIOR – S6CIT2</b>
<b>CO – 1</b>	Manage individuals and groups in organizations for maximum effectiveness.
<b>CO – 2</b>	Understand and manage formal organization structure.
<b>CO – 3</b>	Concepts of learning, motivation and personality development.
<b>CO – 4</b>	Classification of Group Behaviors.
<b>CO – 5</b>	Discuss about Power Tactics.

<b>CO NO</b>	<b>Course Outcomes CRYPTOGRAPHY &amp; NETWORK SECURITY – S6CIT4</b>
<b>CO – 1</b>	Identify various attacks and models for N/W security.
<b>CO – 2</b>	Encrypt & Decrypt messages with classical techniques.
<b>CO – 3</b>	Learn various Algorithms for Encryption and Decryption.
<b>CO – 4</b>	Managing key Distribution and Authentication.
<b>CO – 5</b>	Developing system security by intrusion detection, password management, preventing threats.



<b>CO NO</b>	<b>Course Outcomes PROJECT – S6CITP</b>
<b>CO – 1</b>	Choosing projects in specialized study areas to acquire and build skills in that domain.
<b>CO – 2</b>	Sharpening students intellectual qualities like Programming skills, analytical abilities, Communication skills
<b>CO – 3</b>	Providing Project Guidance and Training
<b>CO – 4</b>	Preparing to meet the demands in the IT industry.
<b>CO – 5</b>	Providing a real time exposure on the latest and trending technologies.

# DEPARTMENT OF COMPUTER APPLICATION

## BCA–SUCA

PO NO	Programme Outcomes
PO-1	The students will be ready to work effectively both as an individual and a team leader on multidisciplinary projects.
PO-2	Inculcates the ability to analyze, identify, formulate and develop computer applications using modern computing tools and techniques.
PO-3	Prepares to create innovative methodologies for solving complex-real life problems for the betterment of society.
PO-4	To integrate ethics and values in designing computer applications.
PO-5	To equip the students to meet the requirements of the corporate world and Industry standard.

PSO NO	Programme specific Outcomes
PSO-1	Start from the basics and in every semester learn each and everything about computer applications.
PSO-2	Develop programming skills, networking skills; learn applications, packages, programming languages and modern techniques of the software industry.
PSO-3	Learn programming languages such as Java, C++, .Net, PHP, etc.
PSO-4	Focuses on preparing students for roles pertaining to computer applications and software industry.
PSO-5	Gives overview of the topics in the IT industry like networking, computer graphics, web development, troubleshooting, hardware and software skills.
PSO-6	Information about various computer applications and latest development in the software industry and communication system is also provided.
PSO-7	Students will be able to know various issues, latest trends in technology development and thereby innovate new ideas and solutions to existing problems.
PSO-8	Bachelor of Computer Applications (BCA) gives a number of opportunities to individuals to go ahead and shine in their lives.
PSO-9	Students will be able to understand, analyse and develop computer programs in the areas related to algorithm, system software, web design and networking for efficient design of computer based systems.
PSO-10	A few of them are like software programmers, system and network administrator, web designer faculty for computer science and computer applications.



<b>CO NO</b>	<b>Course Outcomes PC-SOFTWARE - P3CCA2</b>
<b>CO-1</b>	Understand the concepts of computers and the use of MS office packages.
<b>CO-2</b>	Identify the role of MS-word and its potential application in real-life context.
<b>CO-3</b>	Knowledge in the application of various menus and their uses in MS office packages.
<b>CO-4</b>	Having hands-on training on the use of MS-Excel and MS-PowerPoint
<b>CO-5</b>	Learned to create simple database applications.

<b>CO NO</b>	<b>Course Outcomes STATISTICS - PCACA2</b>
<b>CO-1</b>	Calculate and interpret the correlation between two variables.
<b>CO-2</b>	Calculate the simple linear regression equation for a set of data.
<b>CO-3</b>	Employ the principles of linear regression and correlation, including least square method, predicting a particular value of Y for a given value of X and significance of the correlation coefficient.
<b>CO-4</b>	Know the association between the attributes.
<b>CO-5</b>	Know the construction of point and interval estimators.

<b>CO NO</b>	<b>Course Outcomes PC-SOFTWARE LAB - P3CCAL1</b>
<b>CO-1</b>	Use Microsoft Office programs to create personal and/or business documents following current professional and/or industry standards.
<b>CO-2</b>	Pursue future courses specializing in one or more of the programs.
<b>CO-3</b>	Apply skills and concepts for basic use of computer hardware, software, networks, and the Internet in the workplace and in future coursework as identified by the internationally accepted Internet and Computing Core (IC3) standards.
<b>CO-4</b>	Able to create a presentation using slides.
<b>CO-5</b>	Implement the formulas and calculations in MS Excel

<b>CO NO</b>	<b>Course Outcomes DESKTOP PUBLISHING LAB - P3CCAL2</b>
<b>CO-1</b>	Learn basics of desktop publishing software.
<b>CO-2</b>	Apply attributes of size and style to text to enhance documents.
<b>CO-3</b>	Import graphics, use automatic features of software efficiently.
<b>CO-4</b>	Create and import text.
<b>CO-5</b>	Use critical thinking skills to independently design and create publications.

<b>CO NO</b>	<b>Course Outcomes PROGRAMMING IN C - Q3CCA3</b>
<b>CO-1</b>	Learn the basic and introduction of computer structure of C.
<b>CO-2</b>	Understand the concept of various control structures and looping statements
<b>CO-3</b>	Know arrays, arrays types, string handling functions.
<b>CO-4</b>	Understand user defined functions, categories of function and recursion, structures and unions.
<b>CO-5</b>	Know the concept of pointers, file handling, input output operations.

<b>CO NO</b>	<b>Course Outcomes DISCRETE MATHEMATICS - Q3ACA4</b>
<b>CO-1</b>	Students will be able to construct simple mathematical proofs and possess the ability to verify them ABET [(a, j)].
<b>CO-2</b>	Have substantial experience to comprehend formal logical arguments ABETS [(a, b, c)].
<b>CO-3</b>	Be skill full in expressing mathematical properties formally via the formal language of propositional logic and predicate logic ABET [(a)].
<b>CO-4</b>	Be able to specify and manipulate basic mathematical objects such as sets, functions, and relations and will also be able to verify simple mathematical properties that these objects possess ABET[ (a)].
<b>CO-5</b>	Acquire ability to describe computer programs (e.g. recursive functions) in a formal mathematical manner ABET [(a, c, i, j)].

<b>CO NO</b>	<b>Course Outcomes PROGRAMMING IN C LAB - Q3CCAL3</b>
<b>CO-1</b>	Implement the usage of variables, constants, operators, in programs.
<b>CO-2</b>	Develop the programs for manipulating decision making & looping constructs.
<b>CO-3</b>	Perform operations on functions, arrays & structures.
<b>CO-4</b>	Apply pointers for developing simple programs.
<b>CO-5</b>	Handle file for real time applications.

<b>CO NO</b>	<b>Course Outcomes WEB DESIGNING LAB - Q3CCAL4</b>
<b>CO-1</b>	Design the web pages using hyperlinks.
<b>CO-2</b>	Format the document in the web pages.
<b>CO-3</b>	Use Frames and Framesets in their web page design.
<b>CO-4</b>	Manipulate tables with row span and Column span.
<b>CO-5</b>	Design the colourful web pages according to their creativity.

<b>CO NO</b>	<b>Course Outcomes DATABASE MANAGEMENT SYSTEM - R3CCA9</b>
<b>CO-1</b>	Give an introduction about DBMS, data models, a schema, E-R diagram, relational database and benefits of databases.
<b>CO-2</b>	Able to design a good database using normalization, decomposition and functional dependency.
<b>CO-3</b>	Learn about indexes, sequences, creating and maintaining tables and user privileges.
<b>CO-4</b>	Understand the basic concepts of PL/SQL programming, cursors, triggers, packages, procedures, functions.
<b>CO-5</b>	Understand the concepts of LOB s and its types, advanced object oriented concepts.

<b>CO NO</b>	<b>Course Outcomes OBJECT ORIENTED PROGRAMMING IN C++ - R3CCA4</b>
<b>CO-1</b>	Know the principles of Oops concepts and control structures.
<b>CO-2</b>	Analyze the concept of classes and objects, array, functions, constructor and destructor.
<b>CO-3</b>	Understand the concept of inheritance and its classifications, pointers, virtual function and polymorphism.
<b>CO-4</b>	Able to work with files, pointers and its manipulations.
<b>CO-5</b>	Know the concept of templates and exception handling.

<b>CO NO</b>	<b>Course Outcomes COMPUTER GRAPHICS - R3CCA5</b>
<b>CO-1</b>	Understand the Structure of Modern Computer Graphics systems.
<b>CO-2</b>	Understand the basic Principles of implementing computer graphics primitives.
<b>CO-3</b>	Familiarity with Key algorithms for modeling and rendering graphical data.
<b>CO-4</b>	Develop design & problem solving skills with application to Computer Graphics.
<b>CO-5</b>	Understand the concept of various transformations.

<b>CO NO</b>	<b>Course Outcomes ACCOUNTING SOFTWARE - R3CCA8</b>
<b>CO-1</b>	Students can promote business development activities.
<b>CO-2</b>	To handle account transactions using accounting software.
<b>CO-3</b>	To understand all terms in accounting software.
<b>CO-4</b>	Students can do effortless data movements.
<b>CO-5</b>	Less expenses on data collection & data transfer of files.

<b>CO NO</b>	<b>Course Outcomes OPERATIONAL RESEARCH - R3ACA3</b>
<b>CO-1</b>	Problems like linear programming problem (LPP), transportation problem and assignment problem.
<b>CO-2</b>	Solve the problems using special solution algorithms.
<b>CO-3</b>	Understand different application areas of operations research like maximum flow problem, shortest path problem, game theory and queuing theory.
<b>CO-4</b>	Succeed in stating whether a problem can be solved using operations research and solving problems using techniques of operations research.
<b>CO-5</b>	Explain why heuristics are used to solve some large scale integer programming problems.

<b>CO NO</b>	<b>Course Outcomes PROGRAMMING IN C++ LAB - R3CCAL6</b>
<b>CO-1</b>	Understand how to write and use simple programs using functions and inline functions.
<b>CO-2</b>	Use classes and objects for implementing banking applications.
<b>CO-3</b>	Develop programs using the concept of overloading, friend functions, arrays of objects and constructors.
<b>CO-4</b>	Apply the concept of unary and binary operator overloading.
<b>CO-5</b>	Familiar with the concept related pointers, inheritance and file

<b>CO NO</b>	<b>Course Outcomes DATABASE MANAGEMENT SYSTEM LAB - R3CCAL7</b>
<b>CO-1</b>	Understand DDL commands, Primary key & Candidate key.
<b>CO-2</b>	Apply various DML commands for retrieval of information.
<b>CO-3</b>	Perform all table join operations.
<b>CO-4</b>	Develop simple applications using PL/SQL Procedure.
<b>CO-5</b>	Implement the concepts in triggers, procedures , functions and packages.



<b>CO NO</b>	<b>Course Outcomes FUNDAMENTALS OF COMPUTERS - R4NCA2 (NME)</b>
<b>CO-1</b>	Students should be able to use technology ethically, safely, securely & legally.
<b>CO-2</b>	Discuss about Identifying and analyzing computer hardware, software and network components.
<b>CO-3</b>	Learn on Retrieve information and create reports from various sites.
<b>CO-4</b>	Discuss about Creating chart, effectively use the drawing toolbar and working with multiple worksheet and macros
<b>CO-5</b>	Discuss about powerpoint presenting shows for corporate and commercial, learn the computer viruses and webb features.

<b>CO NO</b>	<b>Course Outcomes WEB DESIGNING - R3SCA3</b>
<b>CO-1</b>	Understand the basic internet architecture
<b>CO-2</b>	Create webpages using tables and frames
<b>CO-3</b>	Display images and create hyperlink for web page
<b>CO-4</b>	Develop attractive webpages in HTML
<b>CO-5</b>	Create dynamic webpages

<b>CO NO</b>	<b>Course Outcomes VISUAL BASIC PROGRAMMING - S3CCA8</b>
<b>CO-1</b>	Know the working environment of visual basics using control structure.
<b>CO-2</b>	Understand the module, components and menu editor and its concept in a simple manner.
<b>CO-3</b>	Analyze controls such as text box, rich text box and etc...write coding easily.
<b>CO-4</b>	Develop the project with a database using ODBC, DAO, ADO and visual data manager.
<b>CO-5</b>	Include the active controls and other control to perform particular task

<b>CO NO</b>	<b>Course Outcomes JAVA PROGRAMMING -S3CCA9</b>
<b>CO-1</b>	Understand the basic concepts of .Java, evaluation and implementation overview of java.
<b>CO-2</b>	Know operators and expressions, decision making and branching, looping.
<b>CO-3</b>	Able to understand classes and methods, array strings and vectors, interface concept instead of multiple inheritances.
<b>CO-4</b>	Packages of java, multithreaded programming contain synchronization, managing errors and exception handling.
<b>CO-5</b>	Able to perform applet programming designing HTML, graphic programming

<b>CO NO</b>	<b>Course Outcomes DATA STRUCTURE - S3CCA10</b>
<b>CO-1</b>	Understand the basic concepts of .Java, evaluation and implementation overview of java.
<b>CO-2</b>	Know operators and expressions, decision making and branching, looping.
<b>CO-3</b>	Able to understand classes and methods, array strings and vectors, interface concept instead of multiple inheritances.
<b>CO-4</b>	Packages of java, multithreaded programming contain synchronization, managing errors and exception handling.
<b>CO-5</b>	Able to perform applet programming designing HTML, graphic programming

<b>CO NO</b>	<b>Course Outcomes NUMERICAL METHOD USING C - S3ACA5</b>
<b>CO-1</b>	Understand the basic concepts of .Java, evaluation and implementation overview of java.
<b>CO-2</b>	Know operators and expressions, decision making and branching, looping.
<b>CO-3</b>	Able to understand classes and methods, array strings and vectors, interface concept instead of multiple inheritances.
<b>CO-4</b>	Packages of java, multithreaded programming contain synchronization, managing errors and exception handling.
<b>CO-5</b>	Able to perform applet programming designing HTML, graphic programming

<b>CO NO</b>	<b>Course Outcomes VISUAL PROGRAMMING LAB - S3CCAL5</b>
<b>CO-1</b>	Design, create, build, and debug Visual Basic applications. Ability to write Windows applications using forms, controls, and events Apply loop structures to perform repetitive tasks.
<b>CO-2</b>	Apply procedures, sub-procedures, and functions to create manageable code.
<b>CO-3</b>	Learn to create one and two dimensional arrays for sorting, calculating, and displaying of data.
<b>CO-4</b>	Know to write Visual Basic programs using object-oriented programming techniques including classes, objects, methods, instance variables, composition and inheritance, and polymorphism.
<b>CO-5</b>	Implement to connect database using ADO

<b>CO NO</b>	<b>Course Outcomes SCRIPTING LAB - S3CCAL7</b>
<b>CO-1</b>	Design and test programs of html documents.
<b>CO-2</b>	Ability to understand the embedding vb script cookies.
<b>CO-3</b>	Develop programs Using JavaScript.learn more about objects of javascript, array and Angular framework.
<b>CO-4</b>	Develop programs using Active server pages. Learn retrieving a cookie value.
<b>CO-5</b>	Implement Java server page expressions, standard action in Query framework.

<b>CO NO</b>	<b>Course Outcomes JAVA PROGRAMMING LAB - S3CCAL6</b>
<b>CO-1</b>	Familiar with the main features of the Java language.
<b>CO-2</b>	Understand to apply the working principles of multithreading, exception and file handling
<b>CO-3</b>	Understand the types of inheritance
<b>CO-4</b>	Learn to interpret the implementation of networking and JDBC in JAVA
<b>CO-5</b>	Implement packages, manipulate threads and exception handling techniques

<b>CO NO</b>	<b>Course Outcomes DIGITAL PRINCIPAL AND COMPUTER ARCHITECTURE - S3ECA5</b>
<b>CO-1</b>	Perform conversions among different number systems, become familiar with basic logic gate
<b>CO-2</b>	Understand Boolean algebra and simplify simple Boolean functions by using basic Boolean properties.
<b>CO-3</b>	Learn different memory structures and technologies.
<b>CO-4</b>	Design of combinational circuits such as MUX, DEMUX, Encoder and Decoder etc.
<b>CO-5</b>	Understand the design of sequential Circuits such as Flip-Flops, Registers, and Counters.

<b>CO NO</b>	<b>Course Outcomes SYSTEM SOFTWARE</b>
<b>CO-1</b>	To understand the basics of system programs like editors, compiler, assembler, linker, loader, interpreter, & debugger.
<b>CO-2</b>	The various concepts of assemblers & macro processor.
<b>CO-3</b>	The various phases of the compiler and compare its working with assembler.
<b>CO-4</b>	The linker & loader create an executable program from an object module created by assembler & compiler.
<b>CO-5</b>	Identify desktop and windows features, Use utility programs.

<b>CO NO</b>	<b>Course Outcomes DESKTOP PUBLISHING - S4NCA4 (NME )</b>
<b>CO-1</b>	Students Analyze compression techniques & file formats to determine effective ways of securing managing & Transferring data.
<b>CO-2</b>	Discuss about Making intelligent computer purchase decisions. effective use of toolbox docker window.
<b>CO-3</b>	Describe Manipulate text and graphics to create a balanced and focused layout.
<b>CO-4</b>	Discuss about Create, edit, and print long documents including supporting pages.
<b>CO-5</b>	Discuss about flash. working with Animation. Scanning & importing graphics.

<b>CO NO</b>	<b>Course Outcomes SCRIPTING LANGUAGE - S3SCA4 (SSP)</b>
<b>CO-1</b>	Understand the concept headsection and body section and other tags in HTML.
<b>CO-2</b>	Know the operators, procedures,looping,objects and cookies in VBscript.
<b>CO-3</b>	Discuss the expressions,functions,arrays and objects in javascript.
<b>CO-4</b>	Introduce ASP script and ASP objects.
<b>CO-5</b>	Learn advantages, components of JSP and servlets.

<b>CO NO</b>	<b>Course Outcomes SOFTWARE ENGINEERING - T3CCA9</b>
<b>CO-1</b>	Identify the basics in designing models.
<b>CO-2</b>	Understand and practice the various fields such as analysis, design, development, testing of Software Engineering
<b>CO-3</b>	Analyze software project size and cost estimation.
<b>CO-4</b>	Learn clarity and completeness of documentation.
<b>CO-5</b>	Compare the various types of software testing

<b>CO NO</b>	<b>Course Outcomes OPERATING SYSTEM - T3CCA5</b>
<b>CO-1</b>	Understand the objectives, structure and functions of the operating system.
<b>CO-2</b>	Learn about the concept of processes, threads and its scheduling algorithms.
<b>CO-3</b>	Understand design issues in process synchronization and deadlock management.
<b>CO-4</b>	Know the various memory management schemes.
<b>CO-5</b>	Learn about file concept and I/O management in detail.

<b>CO NO</b>	<b>Course Outcomes COMPUTER NETWORKS - T3CCA10</b>
<b>CO-1</b>	Learn OSI and TCP/IP reference models in Computer Networks.
<b>CO-2</b>	Understand the concept of transmission media and switching techniques.
<b>CO-3</b>	Know the design issues and services of all layers in detail
<b>CO-4</b>	Applying different encoding and decoding mechanisms involved different types of transmission media.
<b>CO-5</b>	Design a model network to handle various messages.

<b>CO NO</b>	<b>Course Outcomes ASP .NET - T3CCA8</b>
<b>CO-1</b>	Understand the Microsoft .net framework and ASP.net page structure.
<b>CO-2</b>	Develop simple web forms using various controls and implement the concept of master page.
<b>CO-3</b>	Learn to separate page code from content by using code- behind page, page controls, components.
<b>CO-4</b>	Use Microsoft ADO.Net to access data in web applications
<b>CO-5</b>	Debug and Deploy ASP.NET web applications.

<b>CO NO</b>	<b>Course Outcomes ADVANCED JAVA LAB - T3CCAL7</b>
<b>CO-1</b>	Develop basic programs using control statements, Arrays, Inherited classes and Exception.identify the usage of JSP in java.
<b>CO-2</b>	Identify the usage of JSP in java.
<b>CO-3</b>	Utilize Object Serialization.
<b>CO-4</b>	Possess knowledge in handling Synchronization
<b>CO-5</b>	Evaluate the Hibernate JDBC framework .

<b>CO NO</b>	<b>Course Outcomes ASP .NET LAB - T3CCAL6</b>
<b>CO-1</b>	Students will be able to design console, windows and web applications using ASP.Net.
<b>CO-2</b>	Students will be able to use ASP.Net controls in web applications.
<b>CO-3</b>	Examine the needs of windows form and database controls.
<b>CO-4</b>	Students will be able to debug and deploy ASP.Net web applications.
<b>CO-5</b>	Students will be able to create database driven ASP.net web applications and web services.

<b>CO NO</b>	<b>Course Outcomes MULTIMEDIA LAB - T3ECAL3</b>
<b>CO-1</b>	Handle different file formats, changing the resolution, RGB color to gray-scale image and multicolor images.
<b>CO-2</b>	Design brochure and multilayer of images.
<b>CO-3</b>	Perform transformation and filtering on images.
<b>CO-4</b>	Create some basic operations such as painting, strokes and grouping objects.
<b>CO-5</b>	Animate using shapes, twining and actions.

<b>CO NO</b>	<b>Course Outcomes MULTIMEDIA - T3ECA3</b>
<b>CO-1</b>	Understand the various elements of Multimedia.
<b>CO-2</b>	Understand the Multimedia animation and Desktop Computing.
<b>CO-3</b>	Learn Multimedia authoring tools and Multimedia building blocks by including Text and Sound.
<b>CO-4</b>	Learn MIDI Image and Video Image, synchronization accuracy specification factors.
<b>CO-5</b>	Compressing audio and video using MPEG-1 and MPEG-2

<b>CO NO</b>	<b>Course Outcomes CLIENT SERVER COMPUTING</b>
<b>CO-1</b>	Comprehend the basic concepts and components of the client-server model.
<b>CO-2</b>	Understand how Client-Server systems work.
<b>CO-3</b>	Differentiate between two-tier and three-tier architectures.
<b>CO-4</b>	Know the role of server ,CORBA in client server.
<b>CO-5</b>	Identify security and ethical issues in Client Server Computing

<b>CO NO</b>	<b>Course Outcomes ENTERPRISE RESOURCE PLANNING - T3SCA4 (SSP)</b>
<b>CO-1</b>	Describe growth and development of EPR Packages,its role in integration business function and CIO
<b>CO-2</b>	Learning ERP value creation,Investments,Benefits and Risks of ERP
<b>CO-3</b>	Discuss the latest technology in ERP. Understand data mining,SCM,CRM systems
<b>CO-4</b>	Know the reasons for business intelli and ERP
<b>CO-5</b>	Understand the concepts of Ecommerce and Ebusiness

<b>CO NO</b>	<b>Course Outcomes VB .NET PROGRAMMING - U3CCA10</b>
<b>CO-1</b>	Understand use of C# basics, Objects and Types, Inheritance.
<b>CO-2</b>	Develop, implement and creating Applications with C#.
<b>CO-3</b>	Implement, and demonstrate Component Services, Threading, and Remoting, Windows services.
<b>CO-4</b>	Understand and be able to explain Security in the .NET framework and Deployment in the .NET.
<b>CO-5</b>	Develop Assemblies and Deployment in .NET, Mobile Application Development.



<b>CO NO</b>	<b>Course Outcomes PHP - U3CCA11</b>
<b>CO-1</b>	To understand the general concepts of PHP scripting language for the development of Internet websites.
<b>CO-2</b>	Understanding POST and GET in form submission.
<b>CO-3</b>	To understand the basic functions of MySQL database program.
<b>CO-4</b>	To learn the relationship between the client side and the server side scripts.
<b>CO-5</b>	To develop a final project using the learned techniques.

<b>CO NO</b>	<b>Course Outcomes PHP LAB - U3CCAL8</b>
<b>CO-1</b>	Install and configure an Apache 2 server with PHP5 module, MySQL database and the tool PhpMyAdmin.
<b>CO-2</b>	Analyze the various types of array and exception handling methods.
<b>CO-3</b>	Create a database in phpMyAdmin Implement OOPs concepts in an application.
<b>CO-4</b>	Read and process data in a MySQL database.
<b>CO-5</b>	Design an interactive webpage with graphical techniques.

<b>CO NO</b>	<b>Course Outcomes VB .NET LAB - U3CCAL7</b>
<b>CO-1</b>	Understand the VB .NET environment and how to develop small programs.
<b>CO-2</b>	Develop a menu based program for text manipulation.
<b>CO-3</b>	Design to create user defined classes, interfaces and namespaces for developing real time applications.
<b>CO-4</b>	Understand ADO .NET and develop database applications.
<b>CO-5</b>	Develop the applications using Data Grid for displaying records.

<b>CO NO</b>	<b>Course Outcomes SOFTWARE TESTING - U3ECA1</b>
<b>CO-1</b>	List a range of different software testing techniques and strategies and be able to apply specific (automated) unit testing methods to the projects.
<b>CO-2</b>	Distinguish characteristics of structural testing methods.
<b>CO-3</b>	Demonstrate the integration testing which aims to uncover interaction and compatibility problems as early as possible.
<b>CO-4</b>	Discuss about the functional and system testing methods.
<b>CO-5</b>	Demonstrate the implementation of black box and white box testing.

<b>CO NO</b>	<b>Course Outcomes E-COMMERCE</b>
<b>CO-1</b>	Discuss the technologies supporting e-commerce, including Web services and electronic payment systems.
<b>CO-2</b>	Describe a utility program and system application that executes a specific task. TCP protocol determines the best way to distribute application data into packets that networks can deliver, transfer packet to receives packets from the network, and manages flow control and retransmission of dropped or garbled packets.
<b>CO-3</b>	Discuss about server computers, one that is connected to the internet via broadband; typically runs some sort of web server software, such as Internet Server and Explain enablers and issues in business-to-consumer e-commerce.
<b>CO-4</b>	Describe electronic thread is an object, person, or other entity that represents constant danger to an asset. E-commerce - Describe scenarios for B2B e-commerce, including SCM, CRM and EDI.
<b>CO-5</b>	Understand website design issues like building trust with users, banners ads, pop-ups, Dishonest Advertising and web based marketing issues. Policy issues- policy and regulatory issues in E-commerce.

<b>CO NO</b>	<b>Course Outcomes RESEARCH PROJECT - U3ECAP</b>
<b>CO-1</b>	Learn about different software development process models and software engineering principles
<b>CO-2</b>	Develop an ability to apply them to software design of real life problems.
<b>CO-3</b>	Plan, analyze, design and implement a software project using programming languages like Java, ASP, and PHP etc.
<b>CO-4</b>	Gain confidence at having conceptualized, designed and implemented a working major project with their team.
<b>CO-5</b>	Ability to apply the identified concepts of tools and design solutions.

<b>CO NO</b>	<b>Course Outcomes MOBILE COMPUTING–U3SCA4 (SSP)</b>
<b>CO-1</b>	Understand the basic concepts of wireless network
<b>CO-2</b>	Know the various multiplex access, GSM
<b>CO-3</b>	Discuss about the various wireless technologies.
<b>CO-4</b>	Learn about W ATM, development , working group services of WATM, handover.
<b>CO-5</b>	Understand the goals of mobile IP, WML and WAP.

## DEPARTMENT OF COMMERCE (S/F)

### B.Com (COMPUTER APPLICATION) - SUCC

PO NO	Programme Outcomes
PO – 1	The students will be ready for employment in functional areas like accounting, taxation, banking, insurance and corporate law.
PO – 2	An attitude for working effectively and efficiently in a business environment.
PO – 3	Learners will gain knowledge of various disciplines of commerce, business, accounting, economics, and finance, auditing and marketing.
PO – 4	Self-employment confidences develop.
PO – 5	Understanding legal issue/ law relating to banking and insurance sector.

PSO NO	Programme Specific Outcomes
PSO – 1	Understand the basic concepts of the commerce, management, accounting of & economics.
PSO – 2	Analyse relationship among commerce, trade industry, services, management and administration.
PSO – 3	Perform all accounting activities and can handle type of business very well.
PSO – 4	Understand application of knowledge of commerce in business service sector industry, marketing, finance entrepreneurship development etc.
PSO – 5	Develop communication skills and computer awareness and rules of income tax act.

<b>CO NO</b>	<b>Course Outcomes DESKTOP PUBLISHING – P3CCN1</b>
<b>CO-1</b>	Identify desktop publishing terminology and concepts
<b>CO-2</b>	Work with basic features of Word
<b>CO-3</b>	Use critical thinking skills to design and create spread sheets
<b>CO-4</b>	Identify the names and functions of the power point interface
<b>CO-5</b>	Examine database concepts and explore the Microsoft office Access environment

<b>CO NO</b>	<b>Course Outcomes FUNDAMENTALS OF COMPUTER – P3ACN1</b>
<b>CO-1</b>	Bridge the fundamental concepts of computers
<b>CO-2</b>	Familiarize Operating systems, programming language, peripheral devices
<b>CO-3</b>	Understand Binary, Hexadecimal and Octal number systems and their arithmetic
<b>CO-4</b>	Understand the basics of digital computer
<b>CO-5</b>	Analyze various cloud programming models

<b>CO NO</b>	<b>Course Outcomes INTERNET AND E-COMMERCE – Q3CCM8</b>
<b>CO-1</b>	Analyse the impact of E-Commerce business models.
<b>CO-2</b>	Describe the infrastructure for E- Commerce.
<b>CO-3</b>	Discuss legal issues and privacy in e-commerce
<b>CO-4</b>	Demonstrate an understanding of the foundation and importance of E-Commerce
<b>CO-5</b>	Describe internet trending relationships including Business to consumer, Business to Business

<b>CO NO</b>	<b>Course Outcomes C PROGRAMMING – Q3ACN4</b>
<b>CO-1</b>	Outline the concepts of procedure oriented programming
<b>CO-2</b>	Identify the various control structure.
<b>CO-3</b>	Classify various functions in C.
<b>CO-4</b>	Evaluate the file operations
<b>CO-5</b>	Discuss and solve the commercial problem.

<b>CO NO</b>	<b>Course Outcomes OPERATING SYSTEMS – R3CCN3</b>
<b>CO-1</b>	Explain the functionalities of Operating system
<b>CO-2</b>	Experiment the technique of scheduling, paging, and memory allocation
<b>CO-3</b>	Compare memory management techniques
<b>CO-4</b>	Elaborate the mechanism of inter process communication

<b>CO NO</b>	<b>Course Outcomes C++ PROGRAMMING –R3ACN3</b>
<b>CO-1</b>	To understand how C++ improves c with object oriented features
<b>CO-2</b>	To learn how to write inline functions for efficiency and performances
<b>CO-3</b>	To learn how to design C++ classes for code reuse
<b>CO-4</b>	To learn the syntax and semantics of the C++ programming language
<b>CO-5</b>	To learn how to design and implement generic classes with C++ templates

<b>CO NO</b>	<b>Course Outcomes SOFTWARE ENGINEERING – S3CCN4</b>
<b>CO-1</b>	Know the concepts of software engineering
<b>CO-2</b>	Estimate the software costing techniques
<b>CO-3</b>	Gain knowledge of various software testing methods in software development process.
<b>CO-4</b>	An ability to communicate effectively with a range of audiences
<b>CO-5</b>	An ability to acquire and apply new knowledge as needed using appropriate learning strategies

<b>CO NO</b>	<b>Course Outcomes RDBMS – S3ACN4</b>
<b>CO-1</b>	Define the terminology, features, classifications and characteristics embodied in database systems.
<b>CO-2</b>	Comprehend the concepts of basic database storage structure and access technique.
<b>CO-3</b>	Know commercial relational database system by writing SQL using the system
<b>CO-4</b>	Master the basics of SQL and construct queries using SQL
<b>CO-5</b>	Master the basics of query evaluation techniques

<b>CO NO</b>	<b>Course Outcomes VISUAL BASIC PROGRAMMING – T3CCN5</b>
<b>CO-1</b>	Explain basic concepts and definitions
<b>CO-2</b>	Express constants and arithmetic operations
<b>CO-3</b>	Distinguish variable and data types
<b>CO-4</b>	Manage and analyze prepared project with programs
<b>CO-5</b>	Interpret and report obtaining results

<b>CO NO</b>	<b>Course Outcomes COMPUTER NETWORKS – T3CCM17</b>
<b>CO-1</b>	Explain the use of computer networks and the significance of network security
<b>CO-2</b>	Identify the functionalities and protocol of various layers in OSI reference model.
<b>CO-3</b>	Distinguish between connection oriented service and connectionless services
<b>CO-4</b>	Evaluate the importance routing algorithm, congestion control and domain name system.
<b>CO-5</b>	Discuss the usage of IP address, electronic mail and the techniques of security.

<b>CO NO</b>	<b>Course Outcomes ACCOUNTING SOFTWARE – U3CCN7</b>
<b>CO-1</b>	Knowledge about Accounting terms
<b>CO-2</b>	To learn computerized accounting technique
<b>CO-3</b>	To understand financial accounting
<b>CO-4</b>	To learn how to prepare final accounts and cost accounting
<b>CO-5</b>	Knowledge regarding GST calculation



### M. Com(COMPUTER APPLICATION) (S/F)– SPCC

PO NO	Programme Outcomes
PO – 1	Become experts in business data analysis and predict market demand.
PO – 2	Adopt the prudent, ethical financial management techniques and accounting principles for successful business operations.
PO – 3	Develop linkages with business enterprises and take up innovative business assignments.
PO – 4	Self-employment confidences develop.
PO – 5	Understanding legal issue/ law relating to banking and insurance sector.

PSO NO	Programme Specific Outcomes
PSO – 1	Develop skill in commerce and computer applications.
PSO – 2	Analyse relationship among commerce, trade industry, services, management and administration.
PSO – 3	Perform all accounting activities and can handle type of business very well.
PSO – 4	Understand application of knowledge of commerce in business service sector industry, marketing, finance entrepreneurship development etc.
PSO – 5	Become successful income tax and GST consultants and perform well in various competitive examinations like UGC.NET / SET, UPSC ,TNPSC, IBPS etc., and interview being conducted by various public and private sectors.

<b>CO NO</b>	<b>Course Outcomes ADVANCED ACCOUNTING – P6CCM6</b>
<b>CO – 1</b>	To understand the concepts of trading, profit and loss account and the balance sheet.
<b>CO – 2</b>	To Examine the concepts of Partnership accounts, construct accounts for admission, retirement / death of partners.
<b>CO – 3</b>	To analyse the various process of preparing accounts for non-trading organisations.
<b>CO – 4</b>	To identify the Approaches to social accounting, inflation Accounting and Human Resource Accounting.
<b>CO – 5</b>	To evaluate the Indian and International Accounting Standards and various Applicability of Accounting Standards.

<b>CO NO</b>	<b>Course Outcomes FINANCIAL SERVICES – P6CCM7</b>
<b>CO – 1</b>	To understand the role and function of the financial system
<b>CO – 2</b>	To examine the developed of money market
<b>CO – 3</b>	To outline the basic idea of SEBI and its role
<b>CO – 4</b>	To recollect the concept about structure of secondary market
<b>CO – 5</b>	To origin and growth of merchant banking and types of mutual fund

<b>CO NO</b>	<b>Course Outcomes ADVANCED BUSINESS STATISTICS – P6CCM5</b>
<b>CO – 1</b>	To apply correlation and regression analysis including, both simple and multiple correlation and regression.
<b>CO – 2</b>	To develop an understanding of the theory of Probability, rules of probability & probability distributions.
<b>CO – 3</b>	To become aware of the concepts in sampling, sampling distribution and procedure for hypothesis.
<b>CO – 4</b>	To appreciate the importance and application of non-parametric tests in hypothesis testing (Chi-square test).
<b>CO – 5</b>	To appreciate the importance and application of non-parametric tests in hypothesis testing (F-test – ANOVA One way & Two way classification model).

<b>CO NO</b>	<b>Course Outcomes</b> <b>PRINCIPLES OF INFORMATION TECHNOLOGY - P6CCM8</b>
<b>CO - 1</b>	Bridge the fundamental concepts of computers with the present level of knowledge of the students
<b>CO – 2</b>	Familiarise operating systems, programming languages, peripheral devices, networking and internet
<b>CO – 3</b>	Understand Binary, Hexadecimal and Octal number systems and their arithmetic
<b>CO – 4</b>	Describe the important computer system resources and the role of operating system in their management policies and algorithms
<b>CO – 5</b>	Use Microsoft Office programs to create personal, academic and business documents

<b>CO NO</b>	<b>Course Outcomes</b> <b>PRINCIPLES OF INFORMATION TECHNOLOGY LAB – P6CCML2</b>
<b>CO - 1</b>	Acquire practical knowledge of working with menus of windows
<b>CO – 2</b>	Knowledge about create and edit MS-Office and MS-Excel
<b>CO – 3</b>	Acquiring practical knowledge of mathematical function and analysis
<b>CO – 4</b>	Import and Export data from other sources

<b>CO NO</b>	<b>Course Outcomes</b> <b>HUMAN RESOURCE MANAGEMENT – P6ECM2</b>
<b>CO – 1</b>	To introduce the concept of Human Resource management and Personnel Management, Evolution and Development of HRM.
<b>CO – 2</b>	To gain knowledge on the various aspects of Human Resource Planning i.e. Recruitment and Selection process, Placement and Induction.
<b>CO – 3</b>	To gain insight of in to the various sub system of HR, Training and Development Performance Appraisal, MBO Approach.
<b>CO – 4</b>	To learn the components Wages and Salary Administration and benefit Practices in Organization.
<b>CO – 5</b>	To familiarize with the labor relation and collective bargaining, national commission of labor.

<b>CO NO</b>	<b>Course Outcomes OPERATIONS RESEARCH – Q6CCM9</b>
<b>CO – 1</b>	Explain the applications & methodology employed in operations research & prepare solution to linear programming problems.
<b>CO – 2</b>	To be able to build and solve Transportation & Assignment problems using appropriate method.
<b>CO – 3</b>	Apply Queuing theory to solve business related problems.
<b>CO – 4</b>	To be able to design & solve simple models of CPM/PERT.
<b>CO – 5</b>	Enables to take best course of action out of several alternative courses for the purpose of achieving objectives by applying game theory.

<b>CO NO</b>	<b>Course Outcomes RESEARCH METHODOLOGY – Q6CCM10</b>
<b>CO – 1</b>	To introduce the concept of research and research methodology.
<b>CO – 2</b>	To enable to students to understand the sampling.
<b>CO – 3</b>	To make students understand about collection of data.
<b>CO – 4</b>	To enable the students to understand the hypothesis.
<b>CO – 5</b>	To enable the students to write the research report.

<b>CO NO</b>	<b>Course Outcomes C AND C++ PROGRAMMING – Q6CCM13</b>
<b>CO - 1</b>	Design, implement, test, debug programs in C and C++
<b>CO – 2</b>	Program with pointers and arrays, perform pointer arithmetic
<b>CO – 3</b>	Understand how to write and use function, implement function calls and parameter passing options
<b>CO – 4</b>	Use classes, constructors, destructors, inheritance, and operator overloading in C++
<b>CO – 5</b>	Map an object-oriented program design into the class and template model of C++

<b>CO NO</b>	<b>Course Outcomes LAB IN C AND C++ PROGRAMMING - Q6CCML3</b>
<b>CO - 1</b>	Student understanding the knowledge of C and C++
<b>CO - 2</b>	Student able to understand logical program knowledge
<b>CO - 3</b>	Development of application program
<b>CO - 4</b>	Student able to understand mathematical function
<b>CO - 5</b>	C and C++ source code operate to machine code

<b>CO NO</b>	<b>Course Outcomes ACCOUNTING FOR BUSINESS DECISIONS – Q6CCM15</b>
<b>CO – 1</b>	To have developed an fundamental concepts of management accounting
<b>CO – 2</b>	To have a wide knowledge in practicing financial statements and ratio analysis
<b>CO – 3</b>	To prepare the cash flow analysis
<b>CO – 4</b>	To get an idea about decision making while learning about marginal costing and standard costing
<b>CO – 5</b>	To have developed skills in budgetary analysis

<b>CO NO</b>	<b>Course Outcomes ORGANISATIONAL BEHAVIOUR – Q6ECM3</b>
<b>CO – 1</b>	To Understanding the Organizational behaviour theory and Approaches.
<b>CO – 2</b>	To aware of the concept in motivation, morale and conflict management.
<b>CO – 3</b>	To explore the group and group dynamics in the Organizational life.
<b>CO – 4</b>	To learn the components about the role of stress management
<b>CO – 5</b>	To comprehend the change management as it functions in the Organizational behaviour.

<b>CO NO</b>	<b>Course Outcomes CORPORATE ACCOUNTING – R6CCM20</b>
<b>CO – 1</b>	To gain knowledge of divisible profit and its implications in various accounting procedures leading to preparation of final accounts and calculation of pre-incorporation profit, if a company as per Companies Act 2013
<b>CO – 2</b>	To Understand and Develop the skills of valuation of goodwill and shares
<b>CO – 3</b>	To acquire knowledge about Amalgamation, Merger and Internal Reconstruction.
<b>CO – 4</b>	To acquire knowledge on Holding Company as per Companies Act – 2013
<b>CO – 5</b>	To Understand and Exposure concerning the liquation procedure of a company

<b>CO NO</b>	<b>Course Outcomes DIRECT TAXES – R6CCM21</b>
<b>CO – 1</b>	To introduce the basic concept of Income Tax and income computation disclosure standards
<b>CO – 2</b>	To calculate the taxable income under different heads
<b>CO – 3</b>	To acquire knowledge about profits and gains from business or profession, Capital gains and other sources
<b>CO – 4</b>	To enabling the students to have a fair idea on set-off and carry forward of losses and assessment of individuals
<b>CO – 5</b>	To provide knowledge about assessment of firms and companies

<b>CO NO</b>	<b>Course Outcomes VISUAL BASIC .NET – R6CCM19</b>
<b>CO - 1</b>	Students will understand .NET framework and describe some of the major enhancements to the new version of Visual Basic
<b>CO – 2</b>	Students will describe the basic structure of a Visual Basic .NET project and use main features of the integrated development environment(IDE)
<b>CO – 3</b>	Students will create applications using Microsoft Windows Forms
<b>CO – 4</b>	Students will create applications that use ADO .NET

<b>CO NO</b>	<b>Course Outcomes LAB IN VISUAL BASIC .NET - R6CCML4</b>
<b>CO - 1</b>	Understand VB .Net environment
<b>CO - 2</b>	Understand about structure of VB .Net and futures of IDE
<b>CO - 3</b>	Handle controls in form (.Net tools)
<b>CO - 4</b>	Advance controls in VBV .Net
<b>CO - 5</b>	Students will be able to develop VB .Net controls

<b>CO NO</b>	<b>Course Outcomes COMPUTERIZED ACCOUNTING – R6ECM5</b>
<b>CO – 1</b>	To learn computerized accounting technique
<b>CO – 2</b>	To understand financial accounting
<b>CO – 3</b>	Processing a variety of accounting transactions
<b>CO – 4</b>	Converting a manual accounting system to a computer based system
<b>CO – 5</b>	Prepare Financial statements on the completion of the accounting cycle in a timely fashion

<b>CO NO</b>	<b>Course Outcomes LAB IN COMPUTERISED ACCOUNTING - R6ECML1</b>
<b>CO - 1</b>	Understand Accounting principles and create company
<b>CO - 2</b>	Knowledge about create journal ledger and altering process
<b>CO - 3</b>	Student able to understand vouchers and prepare trail balance
<b>CO - 4</b>	Student knowledge about making inventories and stock maintenance
<b>CO - 5</b>	Student to process skill and can be employed as tally entry operator

<b>CO NO</b>	<b>Course Outcomes APPLIED COSTING – R6CCM11</b>
<b>CO – 1</b>	To enable the students to acquire the knowledge of job costing, batch and contract costing.
<b>CO – 2</b>	To provide the detained awareness about service costing.
<b>CO – 3</b>	To ensure the knowledge of using process costing.
<b>CO – 4</b>	To have a complete idea about tenders and quotations.
<b>CO – 5</b>	To familiarize the concepts of cost control, cost reduction and cost audit.

<b>CO NO</b>	<b>Course Outcomes INDIRECT TAXES – S6CCM14</b>
<b>CO – 1</b>	To make the students understand the different features of indirect tax law
<b>CO – 2</b>	To acquire knowledge the GST
<b>CO – 3</b>	To determine the GST input tax credit and GST audit
<b>CO – 4</b>	To enlighten knowledge the procedures and special provision under GST
<b>CO – 5</b>	To understand the Customs Act 1962

<b>CO NO</b>	<b>Course Outcomes SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT – S6CCM15</b>
<b>CO – 1</b>	To enable students to understand various dimensions of managing on investment programme.
<b>CO – 2</b>	To familiarize the students regarding the techniques of analysing securities being applied by fund managers.
<b>CO – 3</b>	Understand, analyse and Various strategies of futures and options in the derivatives markets.
<b>CO – 4</b>	Construct, Analyse, Select and Evaluate Portfolio Management Models
<b>CO – 5</b>	To develop an insight into various issues in portfolio construction, revision and evaluation.



<b>CO NO</b>	<b>Course Outcomes FINANCIAL MANAGEMENT – S6CCM17</b>
<b>CO – 1</b>	To enable the students about the importance of financial management for a business.
<b>CO – 2</b>	To know about the various function to be considered while planning for investment decisions.
<b>CO – 3</b>	To know about the students regarding the various types of financial decision taken by the organisations.
<b>CO – 4</b>	To enable the students to understand working capital management inventories, receivable management and management of cash.
<b>CO – 5</b>	To understand the applications of certain dividend decisions and policies.

<b>CO NO</b>	<b>Course Outcomes COMPUTER NETWORKS – S6CCM18</b>
<b>CO - 1</b>	Students will be able to describe the functions of each layer in OSI and TCP/IP model
<b>CO – 2</b>	Students will be able to explain the functions of Application layer and Presentation layer paradigms and protocols
<b>CO – 3</b>	Students will be able to describe the Session layer design issues and Transport layer services
<b>CO – 4</b>	Students will be able to classify the routing protocols and analyze how to assign the IP addresses for the given network
<b>CO – 5</b>	Students will be able to explain the types of transmission media with real time applications

<b>CO NO</b>	<b>Course Outcomes COMPUTER NETWORKS LAB - S6CCML5</b>
<b>CO - 1</b>	Explores concept of data communication
<b>CO - 2</b>	Investigate computer network concepts
<b>CO - 3</b>	Investigate network models
<b>CO - 4</b>	Identifies network topologies
<b>CO - 5</b>	Explores concept of wireless technologies

<b>CO NO</b>	<b>Course Outcomes INTERNET AND E-COMMERCE – S6ECM6</b>
<b>CO - 1</b>	Demonstrate an understanding of the foundations and importance of E-Commerce
<b>CO – 2</b>	Analyze the impact of E-Commerce on business models and strategy
<b>CO – 3</b>	Discuss legal issues and privacy in E-Commerce
<b>CO – 4</b>	Assess electronic payment systems
<b>CO – 5</b>	Recognize and discuss global E-Commerce issues

<b>CO NO</b>	<b>Course Outcomes MARKETING , BUSINESS LAW, STATISTICS FUNDAMENTALS OF COMPUTER – S6SCM2</b>
<b>CO – 1</b>	To outline the uses of statistics in various business areas and demonstrate diagrammatical and graphical representation.
<b>CO – 2</b>	To enable the development of marketing strategies.
<b>CO – 3</b>	Explain the various provisions of the Indian Contract Act 1872
<b>CO – 4</b>	Bridge the fundamental concepts of computers

<b>CO NO</b>	<b>Course Outcomes PROJECT - S6ECMP</b>
<b>CO - 1</b>	Student able to create application
<b>CO - 2</b>	Advance control used to generate VB .Net application
<b>CO - 3</b>	Office Application generated
<b>CO - 4</b>	Control tools apply for generate and modify machine
<b>CO - 5</b>	Understand software develop models and engineering model

# DEPARTMENT OF COMMERCE

## B.Com (INFORMATION TECHNOLOGY) - SUCI

PO NO	Programme Outcomes
PO – 1	The students will be ready for employment in functional areas like accounting, taxation, banking, insurance and corporate law.
PO – 2	An attitude for working effectively and efficiently in a business environment.
PO – 3	Learners will gain knowledge of various disciplines of commerce, business, accounting, economics, and finance, auditing and marketing.
PO – 4	Self-employment confidences develop.
PO – 5	Understanding legal issue/ law relating to banking and insurance sector.

PSO NO	Programme Specific Outcomes
PSO – 1	Understand the basic concepts of the commerce, management, accounting of & economics.
PSO – 2	Analyse relationship among commerce, trade industry, services, management and administration.
PSO – 3	Perform all accounting activities and can handle type of business very well.
PSO – 4	Understand application of knowledge of commerce in business service sector industry, marketing, finance entrepreneurship development etc.
PSO – 5	Develop communication skills and computer awareness and rules of income tax act.

<b>CO NO</b>	<b>Course Outcomes BUSINESS COMMUNICATION – P1CMI3</b>
<b>CO – 1</b>	Develop oral and written business communication skills
<b>CO – 2</b>	The students will be able to understand about trade enquires, & also the concept of collection letter
<b>CO – 3</b>	To write up the Banking insurance & agency correspondence.
<b>CO – 4</b>	To Describe the company secretarial correspondence.
<b>CO – 5</b>	To prepare application letters & business report presentations.

<b>CO NO</b>	<b>Course Outcomes FINANCIAL ACCOUNTING - I – P3CCMI3</b>
<b>CO – 1</b>	To enable the students to get an idea vision of Accounting
<b>CO – 2</b>	To ensure the detailed coverage of final accounts
<b>CO – 3</b>	To have an idea of bill of exchange accounting
<b>CO – 4</b>	To apply BRS quantitative skills to help analyses and solve business problems
<b>CO – 5</b>	To understand the basic idea of depreciation accounting

<b>CO NO</b>	<b>Course Outcomes PRINCIPLES OF INFORMATION TECHNOLOGY - P3CCMI4</b>
<b>CO – 1</b>	Bridge the fundamental concepts of computers with the present level of knowledge of the students
<b>CO – 2</b>	Familiarise operating systems, programming languages, peripheral devices, networking and internet
<b>CO – 3</b>	Understand Binary, Hexadecimal and Octal number systems and their arithmetic
<b>CO – 4</b>	Describe the important computer system resources and the role of operating system in their management policies and algorithms
<b>CO – 5</b>	Use Microsoft Office programs to create personal, academic and business documents

<b>CO NO</b>	<b>Course Outcomes M/S OFFICE – P3ACMI2</b>
<b>CO – 1</b>	To impart knowledge regarding concepts of Dos and Windows
<b>CO – 2</b>	To learn how to create the document with the help of features of M/S Word.
<b>CO – 3</b>	To learn how to use the formulas for calculation with the help of functions of M/S Excel
<b>CO – 4</b>	To learn how to design and features of M/S Power point.
<b>CO – 5</b>	To explore the Microsoft office Access and other features.

<b>CO NO</b>	<b>Course Outcomes LAB IN M/S OFFICE – P3ACMIL2</b>
<b>CO – 1</b>	To create the knowledge regarding framing the application letter with resume and other file creating.
<b>CO – 2</b>	To learn the simple formula for basic calculation M/S Excel.
<b>CO – 3</b>	To use the formulas for salary and tax calculation in M/S Excel
<b>CO – 4</b>	To design the greeting cards and others for presentation in M/S Power point.

<b>CO NO</b>	<b>Course Outcomes BUSINESS ORGANISATION – Q1CMI4</b>
<b>CO – 1</b>	To understand the basic concepts of Business.
<b>CO – 2</b>	To Equip the keen knowledge of formation of Business.
<b>CO – 3</b>	To Know about difference between Joint stock company and Partnership Firm.
<b>CO – 4</b>	To Acquire conceptual knowledge of company Management
<b>CO – 5</b>	To learn the Features of Co-operative Enterprise and Public Enterprise.

<b>CO NO</b>	<b>Course Outcomes FINANCIAL ACCOUNTING-II – Q3CCMI5</b>
<b>CO – 1</b>	To recollect the basic concept and terms of the Consignment Accounting
<b>CO – 2</b>	To familiarize students with the accounting treatment adopted for joint venture accounts
<b>CO – 3</b>	To understand the basic in preparing single entry system
<b>CO – 4</b>	To apply the knowledge in evaluating for non-profit trading concerns
<b>CO – 5</b>	To understand the basic idea of fire insurance claim

<b>CO NO</b>	<b>Course Outcomes C PROGRAMMING – Q3CCMI6</b>
<b>CO – 1</b>	Outline the concepts of procedure oriented programming
<b>CO – 2</b>	Identify the various control structure.
<b>CO – 3</b>	Classify various functions in C.
<b>CO – 4</b>	Evaluate the file operations
<b>CO – 5</b>	Discuss and solve the commercial problem.

<b>CO NO</b>	<b>Course Outcomes C-PROGRAMMING LAB - Q3CCMIL3</b>
<b>CO – 1</b>	Illustrate the control statements to write basic C programs
<b>CO – 2</b>	Identify the usage of arrays, functions, structures, union and pointers
<b>CO – 3</b>	Analyze the features of structures, union and their applications
<b>CO – 4</b>	Evaluate the importance of pointers with array and functions
<b>CO – 5</b>	Develop C programs using file management concepts

<b>CO NO</b>	<b>Course Outcomes INTERNET AND E-COMMERCE - Q3ACMI3</b>
<b>CO – 1</b>	Analyse the impact of E-Commerce business models.
<b>CO – 2</b>	Describe the infrastructure for E- Commerce.
<b>CO – 3</b>	Discuss legal issues and privacy commerce
<b>CO – 4</b>	Evaluate the functions of digital information system
<b>CO – 5</b>	Discuss the various digital network

<b>CO NO</b>	<b>Course Outcomes HTML LAB - Q3ACMIL3</b>
<b>CO – 1</b>	Analyze a web page and identify its elements and attributes
<b>CO – 2</b>	Create web pages using XHTML and cascading style sheets
<b>CO – 3</b>	Develop skills in analyzing the usability of a web site
<b>CO – 4</b>	Be able to embed social media content in to web pages

<b>CO NO</b>	<b>Course Outcomes FINANCIAL ACCOUNTING – III –R3CCMI9</b>
<b>CO – 1</b>	To enable the students to acquire knowledge in the preparation of regarding accounts.
<b>CO – 2</b>	To enable the students to understand the preparation of hire purchase and instalment purchase system.
<b>CO – 3</b>	To enable the students to understand the maintenance of branch accounts.
<b>CO – 4</b>	To enable the students to understand maintain of departmental accounts.
<b>CO – 5</b>	To enable the students to gain a sound knowledge on Indian accounting standards (Ind. As)

<b>CO NO</b>	<b>Course Outcomes C++ PROGRAMMING - R3CCMI11</b>
<b>CO – 1</b>	To understand how C++ improves c with object oriented features
<b>CO – 2</b>	To learn how to write inline functions for efficiency and performances
<b>CO – 3</b>	To learn how to design C++ classes for code reuse
<b>CO – 4</b>	To learn the syntax and semantics of the C++ programming language
<b>CO – 5</b>	To learn how to design and implement generic classes with C++ templates

<b>CO NO</b>	<b>Course Outcomes C++ PROGRAMMING LAB- R3CCMIL5</b>
<b>CO – 1</b>	Find the solution to a problem using object oriented programming concepts
<b>CO – 2</b>	Choose the relevant OOPS concepts to write program
<b>CO – 3</b>	Evaluate the develop programs using test data
<b>CO – 4</b>	Build data structure application using C++



<b>CO NO</b>	<b>Course Outcomes BUSINESS STATISTICS – R3CCMI2</b>
<b>CO – 1</b>	To outline the uses of statistics in various business areas and demonstrate data in diagrammatical and graphical representations.
<b>CO – 2</b>	To Evaluate the importance of statistical tools like Averages, dispersion, index nos., Time series, Correlation and Regression.
<b>CO – 3</b>	To compute and interpret the correlation between two variables
<b>CO – 4</b>	To delineate the concept of Time series and Index numbers
<b>CO – 5</b>	To forecast the business trends in the form of report using time series

<b>CO NO</b>	<b>Course Outcomes BANKING – R3CCMI3</b>
<b>CO – 1</b>	To enable them to understand better customer relationship
<b>CO – 2</b>	To provide knowledge about deposits and types of customer
<b>CO – 3</b>	To aim to familiarize banking loans and advances
<b>CO – 4</b>	To create awareness about modern banking services like e-banking, m-banking and internet banking
<b>CO – 5</b>	To acquire knowledge on electronic fund transfer, e-money and core banking solutions

<b>CO NO</b>	<b>Course Outcomes SOFTWARE ENGINEERING – R3ACMI4</b>
<b>CO – 1</b>	Know the concepts of software engineering
<b>CO – 2</b>	Estimate the software costing techniques
<b>CO – 3</b>	Gain knowledge of various software testing methods in software development process.
<b>CO – 4</b>	An ability to communicate effectively with a range of audiences
<b>CO – 5</b>	An ability to acquire and apply new knowledge as needed using appropriate learning strategies

<b>CO NO</b>	<b>Course Outcomes PARTNERSHIP ACCOUNTING – S3CCMI13</b>
<b>CO – 1</b>	To enable the student to understand the fundamentals and accounting procedure for partnership accounts.
<b>CO – 2</b>	To enable the student to understand the accounting treatment for administration of partners.
<b>CO – 3</b>	To enable the student to understand the account treatment for retirement of partners.
<b>CO – 4</b>	To enable the student to understand the handle the accounts relating to dissolution of partnership firm.
<b>CO – 5</b>	To enable to students to understand the handle the accounts relating to Piecemeal distribution cash sale to a company and amalgamation of partnership firm.

<b>CO NO</b>	<b>Course Outcomes BUSINESS MATHEMATICS – S3CCMI14</b>
<b>CO – 1</b>	To explain the concepts of set theory, draw Venn diagrams to solve practical problems
<b>CO – 2</b>	To clarify the perception of commercial arithmetic using business level
<b>CO – 3</b>	To Experiment with the Mathematical Tools like Ratio, Proportion and Variation
<b>CO – 4</b>	To recognize the axioms of a system of Probability in the business level
<b>CO – 5</b>	To evaluate some business problems via Theoretical Distribution

<b>CO NO</b>	<b>Course Outcomes JAVA PROGRAMMING- S3CCMI15</b>
<b>CO – 1</b>	Explain the concepts of arrays, threads, applets, exception handling, networking and JDBC
<b>CO – 2</b>	Make use of object oriented programming, API packages and Files
<b>CO – 3</b>	Distinguish console programming with Graphical programming
<b>CO – 4</b>	Interpret the classes in Java API packages and RMI
<b>CO – 5</b>	Create standalone Java based applications

<b>CO NO</b>	<b>Course Outcomes JAVA PROGRAMMING LAB- S3CCMIL6</b>
<b>CO – 1</b>	Explain simple Object Oriented Programs using Java
<b>CO – 2</b>	Apply the working principles of multithreading, exception and file handling
<b>CO – 3</b>	Inspect the usage of string operations
<b>CO – 4</b>	Interpret the implementation of networking and JDBC in JAVA
<b>CO – 5</b>	Develop GUI based Application using applet and swing components

<b>CO NO</b>	<b>Course Outcomes SOFTWARE DEVELOPMENT IN VISUAL BASIC – S3ACMI5</b>
<b>CO – 1</b>	Explain basic concepts and definitions
<b>CO – 2</b>	Express constants and arithmetic operations
<b>CO – 3</b>	Distinguish variable and data types
<b>CO – 4</b>	Manage and analyze prepared project with programs
<b>CO – 5</b>	Interpret and report obtaining results

<b>CO NO</b>	<b>Course Outcomes SOFTWARE DEVELOPMENT IN VISUAL BASIC LAB - S3ACMIL1</b>
<b>CO – 1</b>	Explain the concepts of VB
<b>CO – 2</b>	Identify the role of control structure
<b>CO – 3</b>	Classify the controls in VB
<b>CO – 4</b>	Evaluate the functions of graphics in VB
<b>CO – 5</b>	Elaborate the database connectivity in VB

<b>CO NO</b>	<b>Course Outcomes MARKETING – S3ECMI1</b>
<b>CO – 1</b>	To acquire an understanding of Fundamental concepts of Marketing.
<b>CO – 2</b>	To Enable the development of marketing strategies.
<b>CO – 3</b>	To Learn the concept on advertising and sales promotion.
<b>CO – 4</b>	To Analyze Marketing of physical channel of distribution.
<b>CO – 5</b>	To understand the Customer Relationship Marketing and Green Marketing.

<b>CO NO</b>	<b>Course Outcomes COSTING – T3CCMI13</b>
<b>CO – 1</b>	To enable the students to get an ideal vision of costing.
<b>CO – 2</b>	To ensure the detailed coverage of material cost control.
<b>CO – 3</b>	To have an idea of labour cost control.
<b>CO – 4</b>	To have a vision an using process costing.
<b>CO – 5</b>	To ensure the students for preparing an operating cost statement.

<b>CO NO</b>	<b>Course Outcomes NETWORKING MANAGEMENT- T3CCMI15</b>
<b>CO – 1</b>	Explain the use of computer networks and the significance of network security
<b>CO – 2</b>	Identify the functionalities and protocol of various layers in OSI reference model
<b>CO – 3</b>	Distinguish between connection oriented service and connectionless services
<b>CO – 4</b>	Evaluate the importance routing algorithm, congestion control and domain name system
<b>CO – 5</b>	Discuss the usage of IP address, electronic mail and the techniques of security

<b>CO NO</b>	<b>Course Outcomes INCOME TAX – I – T3CCMI16</b>
<b>CO – 1</b>	To introduce the basic concept of Income Tax
<b>CO – 2</b>	To acquire knowledge about income from salary
<b>CO – 3</b>	To calculate income from house property
<b>CO – 4</b>	To enlighten knowledge the income from business or profession
<b>CO – 5</b>	To provide knowledge about capital gains and income from other sources

<b>CO NO</b>	<b>Course Outcomes RDBMS – T3CCMI17</b>
<b>CO – 1</b>	Define the terminology, features, classifications and characteristics embodied in database systems.
<b>CO – 2</b>	Comprehend the concepts of basic database storage structure and access technique.
<b>CO – 3</b>	Know commercial relational database system by writing SQL using the system
<b>CO – 4</b>	Master the basics of SQL and construct queries using SQL
<b>CO – 5</b>	Master the basics of query evaluation techniques

<b>CO NO</b>	<b>Course Outcomes RDBMS LAB- T3CCMIL7</b>
<b>CO – 1</b>	Demonstrate the structured query language commands, constraints and functions
<b>CO – 2</b>	Experiment with join operations and set operations
<b>CO – 3</b>	Examine the procedural language/ structured query language, cursor and exception handling
<b>CO – 4</b>	Evaluate the procedures, functions ,triggers and oracle reports
<b>CO – 5</b>	Construct an database for an application

<b>CO NO</b>	<b>Course Outcomes COMPANY ACCOUNTS –T3ECMI3</b>
<b>CO – 1</b>	To understand the accounting procedure for issue of shares and debentures, redemption of preference shares and debentures.
<b>CO – 2</b>	To gain knowledge of divisible profit and its implications in various accounting procedures leading to preparation of final accounts and calculation of pre-incorporation profits, if a company as per Companies Act 2013.
<b>CO – 3</b>	To Understand and Develop the skills of valuation of goodwill and shares
<b>CO – 4</b>	To acquire knowledge about Amalgamation, Merger and Internal Reconstruction.
<b>CO – 5</b>	To Understand and Exposure concerning the liquation procedure of a company

<b>CO NO</b>	<b>Course Outcomes MANAGEMENT ACCOUNTING – U3CCMI17</b>
<b>CO – 1</b>	To know about the practice of management accounting concepts
<b>CO – 2</b>	To have a wide knowledge in practising ratio analysis.
<b>CO – 3</b>	To prepare cash flow analysis.
<b>CO – 4</b>	To get an idea about decision making while learning marginal costing.
<b>CO – 5</b>	To get an idea of practicing standard costing.

<b>CO NO</b>	<b>Course Outcomes ACCOUNTING SOFTWARE – U3CCMI19</b>
<b>CO – 1</b>	Knowledge about Accounting terms
<b>CO – 2</b>	To learn computerized accounting technique
<b>CO – 3</b>	To understand financial accounting
<b>CO – 4</b>	To learn how to prepare final accounts and cost accounting
<b>CO – 5</b>	Knowledge regarding GST calculation

<b>CO NO</b>	<b>Course Outcomes ACCOUNTING SOFTWARE LAB- U3CCMIL8</b>
<b>CO – 1</b>	Prepare vouchers in T ally
<b>CO – 2</b>	Expertise in creation of new company in Tally
<b>CO – 3</b>	Endorse trail balance through Tally

<b>CO NO</b>	<b>Course Outcomes INCOME TAX – II – U3CCMI20</b>
<b>CO – 1</b>	To enabling the students to have a fair idea on set-off and carry forward of losses
<b>CO – 2</b>	To determine the concept of assessment of individual
<b>CO – 3</b>	To equip the students with thoughts and points on assessment of firms, AOP and companies
<b>CO – 4</b>	To determine the knowledge about income tax authorities
<b>CO – 5</b>	To acquire knowledge about procedure for assessment

<b>CO NO</b>	<b>Course Outcomes BANKING – U3ECMI3</b>
<b>CO – 1</b>	To enable them to understand better customer relationship
<b>CO – 2</b>	To provide knowledge about deposits and types of customer
<b>CO – 3</b>	To aim to familiarize banking loans and advances
<b>CO – 4</b>	To create awareness about modern banking services like e-banking, m-banking and internet banking
<b>CO – 5</b>	To acquire knowledge on electronic fund transfer, e-money and core banking solutions

# DEPARTMENT OF COMMERCE

## B.ComRETAIL MARKETING - SUCR

PO NO	Programme Outcomes
PO – 1	The students will be ready for employment opportunities in retail industry and entrepreneurship
PO – 2	Retail is a dynamic industry, comprising a vast employment in modern business.
PO – 3	The candidate ready for functional areas like taxation, corporate accounting
PO – 4	The candidate ready for functional areas like Law and practice of modern banking, Insurance sector, Business law, Retail franchising
PO – 5	The candidate ready for functional areas like Retail development, Business environment, Practical Auditing and Modern marketing

PSO NO	Programme Specific Outcomes
PSO – 1	Understand the concept of the retail sector
PSO – 2	Know the modern marketing and e-banking activities
PSO – 3	Maintain different types of accounts in all size of firm
PSO – 4	Have a sound knowledge of direct taxation
PSO – 5	Handle the legal issues of the organization



<b>CO NO</b>	<b>Course Outcomes BUSINESS COMMUNICATION – P1CMR2</b>
<b>CO – 1</b>	Develop oral and written business communication skills
<b>CO – 2</b>	The students will be able to understand about trade enquires, & also the concept of collection letter
<b>CO – 3</b>	To write up the Banking insurance & agency correspondence.
<b>CO – 4</b>	To Describe the company secretarial correspondence.
<b>CO – 5</b>	To prepare application letters & business report presentations.

<b>CO NO</b>	<b>Course Outcomes FINANCIAL ACCOUNTING - I –P3CCMR1</b>
<b>CO – 1</b>	To enable the students to get an idea vision of Accounting
<b>CO – 2</b>	To ensure the detailed coverage of final accounts
<b>CO – 3</b>	To have an idea of bill of exchange accounting
<b>CO – 4</b>	To apply BRS quantitative skills to help analyses and solve business problems
<b>CO – 5</b>	To understand the basic idea of depreciation accounting

<b>CO NO</b>	<b>Course Outcomes MARKETING MANAGEMENT –P3CCMR2</b>
<b>CO – 1</b>	To understand introduction to marketing, nature, scope and importance of marketing
<b>CO – 2</b>	To enable the traditional and modern concept of marketing and functions of marketing
<b>CO – 3</b>	To know the demographic, economic, macro and micro marketing environment, social cultural environment
<b>CO – 4</b>	To make them understand pricing policies
<b>CO – 5</b>	To know the channel of management decision

<b>CO NO</b>	<b>Course Outcomes BUSINESS ECONOMICS – P3CCMR1</b>
<b>CO – 1</b>	To enhance the students on managerial economics
<b>CO – 2</b>	To familiarize students about fundamental concept
<b>CO – 3</b>	To understand the law of demand, optimum level of population
<b>CO – 4</b>	To make them understand sales forecasting
<b>CO – 5</b>	To know the profit planning and profit forecasting

<b>CO NO</b>	<b>Course Outcomes BUSINESS ORGANISATION– Q1CMR3</b>
<b>CO – 1</b>	To understand the basic concepts of Business.
<b>CO – 2</b>	To Equip the keen knowledge of formation of Business.
<b>CO – 3</b>	To Know about difference between Joint stock company and Partnership Firm.
<b>CO – 4</b>	To Acquire conceptual knowledge of company Management
<b>CO – 5</b>	To learn the Features of Co-operative Enterprise and Public Enterprise.

<b>CO NO</b>	<b>Course Outcomes FINANCIAL ACCOUNTING-II –Q3CCMR2</b>
<b>CO – 1</b>	To recollect the basic concept and terms of the Consignment Accounting
<b>CO – 2</b>	To familiarize students with the accounting treatment adopted for joint venture accounts
<b>CO – 3</b>	To understand the basic in preparing single entry system
<b>CO – 4</b>	To apply the knowledge in evaluating for non-profit trading concerns
<b>CO – 5</b>	To understand the basic idea of fire insurance claim

<b>CO NO</b>	<b>Course Outcomes ADVERTISING AND SALES PROMOTION – Q3CCMR3</b>
<b>CO – 1</b>	To develop an idea about advertisement and its functions
<b>CO – 2</b>	To familiarize students about advertising media and its classification of advertising media
<b>CO – 3</b>	To analyze sales promotion, knowledge on design and execution of advertising
<b>CO – 4</b>	To understand online sales promotions
<b>CO – 5</b>	This subject will help the students to become a good advertisers and sales executives

<b>CO NO</b>	<b>Course Outcomes MS OFFICE PRACTICAL – Q3ACMRL1</b>
<b>CO – 1</b>	To introduce the students about basics of MS – Office
<b>CO – 2</b>	To provide practical knowledge exposure to MS - Word
<b>CO – 3</b>	To provide practical knowledge exposure to MS –Excel
<b>CO – 4</b>	To provide practical knowledge experience to MS – Power point
<b>CO – 5</b>	Develop the competence of database management

<b>CO NO</b>	<b>Course Outcomes FINANCIAL ACCOUNTING – III –R3CCMR1</b>
<b>CO – 1</b>	To enable the students to acquire knowledge in the preparation of regarding accounts.
<b>CO – 2</b>	To enable the students to understand the preparation of hire purchase and instalment purchase system.
<b>CO – 3</b>	To enable the students to understand the maintenance of branch accounts.
<b>CO – 4</b>	To enable the students to understand maintain of departmental accounts.
<b>CO – 5</b>	To enable the students to gain a sound knowledge on Indian accounting standards (Ind. As)

<b>CO NO</b>	<b>Course Outcomes BUSINESS STATISTICS –R3CCMR2</b>
<b>CO – 1</b>	To outline the uses of statistics in various business areas and demonstrate data in diagrammatical and graphical representations.
<b>CO – 2</b>	To Evaluate the importance of statistical tools like Averages, dispersion, index nos., Time series, Correlation and Regression.
<b>CO – 3</b>	To compute and interpret the correlation between two variables
<b>CO – 4</b>	To delineate the concept of Time series and Index numbers
<b>CO – 5</b>	To forecast the business trends in the form of report using time series

<b>CO NO</b>	<b>Course Outcomes RETAIL DEVELOPMENT – R3CCMR3</b>
<b>CO – 1</b>	The subject indicates the retail industry
<b>CO – 2</b>	Explain and analyze the retail organization
<b>CO – 3</b>	To understand and identify Economics of retailing
<b>CO – 4</b>	To analyze types of Grand strategy ; bases of strategy
<b>CO – 5</b>	After the successful completion of this paper, students would become international retailers and professionals.

<b>CO NO</b>	<b>Course Outcomes RETAIL BUYING – R3CCMR4</b>
<b>CO – 1</b>	To enable them to understand concepts of retail buying
<b>CO – 2</b>	To enhance the students on buying for traditional retail organizations
<b>CO – 3</b>	To make them understand buying for discount operations
<b>CO – 4</b>	Explain and analyze the price retail operations
<b>CO – 5</b>	To know the bite retail operations

<b>CO NO</b>	<b>Course Outcomes PRINCIPLES OF PRACTICE OF INSURANCE –R3CCMR5</b>
<b>CO – 1</b>	To understand the basic concepts of Insurance
<b>CO – 2</b>	To Enrich knowledge the life Insurance Policies
<b>CO – 3</b>	To Develop a clear understanding about the Fire insurance
<b>CO – 4</b>	To Enable students to know about basics the concept of Marine Insurance policy
<b>CO – 5</b>	To learn basic need of General insurance

<b>CO NO</b>	<b>Course Outcomes GENERAL KNOWLEDGE - I – R3SCMR1</b>
<b>CO – 1</b>	To have a depth information about land and National symbols
<b>CO – 2</b>	To ensure the detail coverage of National agriculture
<b>CO – 3</b>	To knowledge about commerce and international trade
<b>CO – 4</b>	To acquire knowledge on finance institution
<b>CO – 5</b>	To enrich the students' knowledge on industry and its reforms and programmes

<b>CO NO</b>	<b>Course Outcomes PARTNERSHIP ACCOUNT –S3CCMR1</b>
<b>CO – 1</b>	To enable the student to understand the fundamentals and accounting procedure for partnership accounts.
<b>CO – 2</b>	To enable the student to understand the accounting treatment for administration of partners.
<b>CO – 3</b>	To enable the student to understand the account treatment for retirement of partners.
<b>CO – 4</b>	To enable the student to understand the handle the accounts relating to dissolution of partnership firm.
<b>CO – 5</b>	To enable to students to understand the handle the accounts relating to Piecemeal distribution cash sale to a company and amalgamation of partnership firm.

<b>CO NO</b>	<b>Course Outcomes BUSINESS MATHEMATICS –S3CCMR2</b>
<b>CO – 1</b>	To explain the concepts of set theory, draw Venn diagrams to solve practical problems
<b>CO – 2</b>	To clarify the perception of commercial arithmetic using business level
<b>CO – 3</b>	To Experiment with the Mathematical Tools like Ratio, Proportion and Variation
<b>CO – 4</b>	To recognize the axioms of a system of Probability in the business level
<b>CO – 5</b>	To evaluate some business problems via Theoretical Distribution

<b>CO NO</b>	<b>Course Outcomes RETAIL FRANCHISING – S3CCMR3</b>
<b>CO – 1</b>	This subject will help the students to become a good franchisee
<b>CO – 2</b>	To enable the students to learn franchising as strategy
<b>CO – 3</b>	To familiarize students about investigating and evaluating a franchisee
<b>CO – 4</b>	To know the financial aspects of a franchisee
<b>CO – 5</b>	To understand and analyze legal aspects of franchisee

<b>CO NO</b>	<b>Course Outcomes MOBILE COMMERCE – S3CCMR4</b>
<b>CO – 1</b>	Understand the concept of M- Commerce and characteristics of M-Commerce.
<b>CO – 2</b>	To familiarize students about mobile commerce
<b>CO – 3</b>	To enable the students to learn mobile commerce applications
<b>CO – 4</b>	Students can get the knowledge in Locations Commerce and origin & Evaluation of Mobile Commerce
<b>CO – 5</b>	Develop the Mobile Business; WML Script

<b>CO NO</b>	<b>Course Outcomes BANKING LAW AND PRACTICE – S3ECMR1</b>
<b>CO – 1</b>	To enlighten the students knowledge on banking Regulation Acts
<b>CO – 2</b>	To familiarize students types of deposits
<b>CO – 3</b>	To enable the students to learn Negotiable Instruments in banking
<b>CO – 4</b>	Students can get the knowledge in Paying Banker
<b>CO – 5</b>	To understand the General principles of Bank lending

<b>CO NO</b>	<b>Course Outcomes GENERAL KNOWLEDGE - II– R3SCMR2</b>
<b>CO – 1</b>	To enable the students to gains sound knowledge on the politics, legislative and its services
<b>CO – 2</b>	To enable the students to acquire knowledge on defence institutions
<b>CO – 3</b>	To enable the students to be familiar with education, educational programme, projects and organisation
<b>CO – 4</b>	To enable the students to be familiar with energy organisation
<b>CO – 5</b>	To enable the students’ knowledge about India and world and its organisations

<b>CO NO</b>	<b>Course Outcomes INCOME TAX – I –T3CCMR1</b>
<b>CO – 1</b>	To introduce the basic concept of Income Tax
<b>CO – 2</b>	To acquire knowledge about income from salary
<b>CO – 3</b>	To calculate income from house property
<b>CO – 4</b>	To enlighten knowledge the income from business or profession
<b>CO – 5</b>	To provide knowledge about capital gains and income from other sources

<b>CO NO</b>	<b>Course Outcomes COSTING – T3CCMR2</b>
<b>CO – 1</b>	To enable the students to get an ideal vision of costing.
<b>CO – 2</b>	To ensure the detailed coverage of material cost control.
<b>CO – 3</b>	To have an idea of labour cost control.
<b>CO – 4</b>	To have a vision an using process costing.
<b>CO – 5</b>	To ensure the students for preparing an operating cost statement.

<b>CO NO</b>	<b>Course Outcomes RETAIL LOGISTICS &amp; SUPPLY CHAIN MANAGEMENT – T3CCMR3</b>
<b>CO – 1</b>	To analyze Retail logistics, Inventory management
<b>CO – 2</b>	To help to gather on supply chain management and types of supply chains
<b>CO – 3</b>	To provide knowledge about Retail promotion strategies
<b>CO – 4</b>	To acquire knowledge on Retail store layout
<b>CO – 5</b>	To create awareness about Retail organisation and various Retailing formats

<b>CO NO</b>	<b>Course Outcomes RETAIL BRANDING – T3CCMR4</b>
<b>CO – 1</b>	To facilitate the students to acquire the basic knowledge in Retail Branding, Brand Loyalty
<b>CO – 2</b>	To enable the students to gain knowledge of the positioning of a Brand, Brand image and Brand awareness
<b>CO – 3</b>	To help the students to gain knowledge of Brand valuation and methods of valuation of cost of Brands
<b>CO – 4</b>	To enhance the students on Branding strategies
<b>CO – 5</b>	To familiarize students about Decline and Ageing of Brands



<b>CO NO</b>	<b>Course Outcomes COMPANY ACCOUNTS –T3ECMR2</b>
<b>CO – 1</b>	To understand the accounting procedure for issue of shares and debentures, redemption of preference shares and debentures.
<b>CO – 2</b>	To gain knowledge of divisible profit and its implications in various accounting procedures leading to preparation of final accounts and calculation of pre-incorporation profits, if a company as per Companies Act 2013.
<b>CO – 3</b>	To Understand and Develop the skills of valuation of goodwill and shares
<b>CO – 4</b>	To acquire knowledge about Amalgamation, Merger and Internal Reconstruction.
<b>CO – 5</b>	To Understand and Exposure concerning the liquation procedure of a company

<b>CO NO</b>	<b>Course Outcomes PRINCIPLES OF COMMERCE AND GENERAL COMMERCIAL KNOWLEDGE - I –T3SCMR1</b>
<b>CO – 1</b>	To enable the students to understand the commerce
<b>CO – 2</b>	To make the students understand about join stock company
<b>CO – 3</b>	To enable the students to understand the office, office administration
<b>CO – 4</b>	To enable the students to understand the office machines
<b>CO – 5</b>	To understand the trade and foreign trade

<b>CO NO</b>	<b>Course Outcomes INCOME TAX – II – U3CCMR4</b>
<b>CO – 1</b>	To enabling the students to have a fair idea on set-off and carry forward of losses
<b>CO – 2</b>	To determine the concept of assessment of individual
<b>CO – 3</b>	To equip the students with thoughts and points on assessment of firms, AOP and companies
<b>CO – 4</b>	To determine the knowledge about income tax authorities
<b>CO – 5</b>	To acquire knowledge about procedure for assessment

<b>CO NO</b>	<b>Course Outcomes MANAGEMENT ACCOUNTING – U3CCMR2</b>
<b>CO – 1</b>	To know about the practice of management accounting concepts
<b>CO – 2</b>	To have a wide knowledge in practising ratio analysis.
<b>CO – 3</b>	To prepare cash flow analysis.
<b>CO – 4</b>	To get an idea about decision making while learning marginal costing.
<b>CO – 5</b>	To get an idea of practicing standard costing.

<b>CO NO</b>	<b>Course Outcomes RETAIL ENVIRONMENT – U3CCMR3</b>
<b>CO – 1</b>	To develop an idea about Retailing and Retail selling
<b>CO – 2</b>	To enhance the students on Business models in Retail
<b>CO – 3</b>	To aim to familiarize Retailing in India
<b>CO – 4</b>	To provide knowledge about consumer decision making process
<b>CO – 5</b>	To create awareness about foreign Direct investment in Retail

<b>CO NO</b>	<b>Course Outcomes PROJECT – U3CCMRP</b>
<b>CO – 1</b>	To facilitate the students to gain the practical knowledge in the project work involved, the more experience they attain, which enhances their career choice
<b>CO – 2</b>	Awareness is first and foremost the key to success in engaging the undergraduate students through research and the undergraduate experience is greatly enriched by attaining research experience early and often.
<b>CO – 3</b>	To be aware of the students potential interest in research as a career, as a work experience opportunity through project work
<b>CO – 4</b>	Any academic institution can enhance its undergraduate curriculum by promoting research to those who show an interest but who might not otherwise know how to get involved
<b>CO – 5</b>	Exposure to research as undergraduates can also increase the likelihood of becoming successful researchers futures

<b>CO NO</b>	<b>Course Outcomes AUDITING – U3ECMR2</b>
<b>CO – 1</b>	To develop an idea about principles and practice of auditing
<b>CO – 2</b>	To enhance the students on Internal audit and external audit
<b>CO – 3</b>	To aim to familiarize vouching
<b>CO – 4</b>	To provide knowledge about verification and valuation of assets and liabilities
<b>CO – 5</b>	To prepare audit report

# DEPARTMENT OF BUSINESS ADMINISTRATION

## B.B.A (COMPUTER APPLICATION) - SUBA

PO NO	Programme Outcomes
PO – 1	Demonstrate fundamental knowledge in accounting ,economics, finance management and marketing in application of concept and theories
PO – 2	Produce creative business solution
PO – 3	Demonstrate knowledge and able to identify accepted ethical business standards.
PO – 4	Realize effective skills in written and oral communications using appropriate technologies.
PO – 5	Develop a self-employment that will be able to initiate and build up entrepreneurial venture and demonstrate entrepreneurship for their employer organizations.

PSO NO	Programme Specific Outcomes
PSO – 1	Acquire academic excellence with an aptitude for higher studies, research and to meet competitive exams.
PSO – 2	Display competencies and knowledge in keys functional areas with commercial correspondence.
PSO – 3	Equip them effectively in social ethical value, manage people and build strong relationship.
PSO – 4	Enhance critical thinking and analytical skills in terms of decision making.
PSO – 5	Develop entrepreneurial skill to motivate towards start-up.

<b>CO NO</b>	<b>Course Outcomes COMMUNICATION SYSTEMS -P1BB4</b>
<b>CO – 1</b>	To define an important of business communication need of business letter's it's function and kinds.
<b>CO – 2</b>	To explain various trade enquire.
<b>CO – 3</b>	To write up the banking, insurance and agency correspondence.
<b>CO – 4</b>	To describe the company secretarial correspondence.
<b>CO – 5</b>	To prepare application letters and business report presentation.

<b>CO NO</b>	<b>Course Outcomes MANAGEMENT THEORY AND PRACTICE -P3CCBB6</b>
<b>CO – 1</b>	Describe management is concerned with the implementation or execution.
<b>CO – 2</b>	Compare planning and decision making are different
<b>CO – 3</b>	Recall selecting one alternative from among many alternative is what is called decision making.
<b>CO – 4</b>	Examine motivation by human needs.
<b>CO – 5</b>	Co-ordination is necessary mainly due to interdependence.

<b>CO NO</b>	<b>Course Outcomes PRINCIPLES OF ACCOUNTING – P3CBB7</b>
<b>CO – 1</b>	Consequences the fundamental concepts Of accounting and book keeping
<b>CO – 2</b>	Obtain problems related to Journal, ledger, trial balance and errors
<b>CO – 3</b>	Analyze various methods of deprecation
<b>CO – 4</b>	Assessing capital expenditure revenue expenditure and final accounts.
<b>CO – 5</b>	Evaluate the impact of non trading concern

<b>CO NO</b>	<b>Course Outcomes FUNDAMENTAL OF COMPUTER AND OFFICE AUTOMATION AND MS-OFFICE LAB - P3ABB3</b>
<b>CO – 1</b>	To learn about the computer, components, algorithm, flowchart.
<b>CO – 2</b>	Demonstrate the various menus and its operation Word (mail merge table, spelling and grammar, macro etc).
<b>CO – 3</b>	Write up MS-Excel along with practical usage like preparation of student mark list, EB Bill, salary calculation by using formula and different type of charts.
<b>CO – 4</b>	Creation of various slides and different format Effects with the help of MS-Power point
<b>CO – 5</b>	Formation of payroll for employee, students mark list and creation of forms and reports by using MS-Access.

<b>CO NO</b>	<b>Course Outcomes BUSINESS ECONOMICS -Q1BB5</b>
<b>CO – 1</b>	Describe the nature of the business economics.
<b>CO – 2</b>	Apply demand analysis to relevant economics issues.
<b>CO – 3</b>	Examine the production and cost function.
<b>CO – 4</b>	Compare price under various market conditions.
<b>CO – 5</b>	Appraisal the methods of measuring national income.

<b>CO NO</b>	<b>Course Outcomes ORGANISATIONAL BEHAVIOUR -Q3CBB9</b>
<b>CO – 1</b>	Behaviour of organization, out comes and the challenges of Organization.
<b>CO – 2</b>	Aspects regarding classical & neo classical and discover the models of organizational behaviour
<b>CO – 3</b>	Illustrate theories of personality and the theories related to the motivation and perception.
<b>CO – 4</b>	Acquiring groups, types, stages and examine the leadership styles and theories.

<b>CO – 5</b>	Analysis organizational culture & climate and infer the importance of organizational change.
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<b>CO NO</b>	<b>Course Outcomes MARKETING MANAGEMENT – Q3CBB10</b>
<b>CO – 1</b>	To Explain Marketing is also a social process in the sense.
<b>CO – 2</b>	To Describe Marketing is concerned with human needs.
<b>CO – 3</b>	Recall All Marketing activities revolve around exchange process
<b>CO – 4</b>	To prepare the Marketing organisation must have its own goals and objective
<b>CO – 5</b>	To understand the Modern concept Of Market and analysis various elements of Markets, Marketing Mix.

<b>CO NO</b>	<b>Course Outcomes PROGRAMMING IN C AND PROGRAM IN C LAB – Q3ABB5</b>
<b>CO – 1</b>	Explore the history,importance, structure of c program and tokens.
<b>CO – 2</b>	To familiar with fundamental concept of operation and expression, input, output statement. Practice on program to develop operator, expression how to set input and display output.
<b>CO – 3</b>	Ability to understand decision making branching and looping(for,while,do while,.if,switch etc)
<b>CO – 4</b>	Ability to practice program for decision making, branching and looping program To learn about array and its types, function and its category.
<b>CO – 5</b>	To practice program for array and function concept. To understanding the programming aspects of structure, pointer, file.

<b>CO NO</b>	<b>Course Outcomes SALES MANAGEMENT -R3CBB14</b>
<b>CO – 1</b>	To Acquire knowledge about Salesmanship.
<b>CO – 2</b>	To Develop Skill as to apply the sales technique to various situations.
<b>CO – 3</b>	To understand the psychology of buyers.

<b>CO – 4</b>	To Develop buying formula theory of selling is the modern approach.
<b>CO – 5</b>	To Essential for the salesman to know the sales policies and strategies.

<b>CO NO</b>	<b>Course Outcomes BUSINESS LAW – R3CBB15</b>
<b>CO – 1</b>	Identify the fundamental legal principles behind contractual agreements.
<b>CO – 2</b>	Classify the contract of agency, and its types and able to understand the sales of Goods Act.
<b>CO – 3</b>	Analyse the Law of Agency and formation of partnership.
<b>CO – 4</b>	Understand the factories act regard to the guidelines in the payment of wages act, payment of bonus act.
<b>CO – 5</b>	Obtain the workmen’s compensation act.

<b>CO NO</b>	<b>Course Outcomes ENVIRONMENT OF BUSINESS – R3CBB17</b>
<b>CO – 1</b>	Understand the concept of business environment and components.
<b>CO – 2</b>	Determine social responsibility of business, social audit and business ethics.
<b>CO – 3</b>	Retrieve the concept of liberalization privatisation & globalization.
<b>CO – 4</b>	Identify the economic system types and analyze be the sectors of SEBI FEMA.
<b>CO – 5</b>	Describe public sector and private sector and summarize WTO.

<b>CO NO</b>	<b>Course Outcomes BUSINESS STATISTICS - R3ABB5</b>
<b>CO – 1</b>	Understand basic statistical concepts such as statistics tabular and graphical representation of data.
<b>CO – 2</b>	Calculate measures of central tendency, measures of dispersion.
<b>CO – 3</b>	Examine the goodness of fit and correction, regression analysis with simple solution.



CO – 4	Construct and interpret index numbers.
CO – 5	Illustrate the concepts of times series measurement of scalar trend.

CO NO	Course Outcomes OBJECT ORIENTED PROGRAMMING IN C++ AND C++ LAB –R3CBBB16
CO – 1	Ability to understand the basic concept of object oriented,tokens, operators, expression, control structure. Practice program for OOPS, tokens, operator, expression, control structure.
CO – 2	Explore the function concept, function overloading, friend virtual function. To implement and built concept function overloading, friend and virtual function person.
CO – 3	To familiar recall for class,object,and understand constructor and destructor, operator overheads, templates. Practice program for class, object constructor,destructor,operator,overheads,templates.
CO – 4	To learn about inheritance and its type pointer virtual function,polymorphism,I/O operation.
CO – 5	To understand basic file concepts like open,close,I/O operation, decision making, benefit looping.

CO NO	Course Outcomes TOTAL QUALITY MANAGEMENT – S3CBB10
CO – 1	To Explain Quality is conforming to specification and quality was customer satisfaction.
CO – 2	To Describe quality has to be defined in clear term to the industries.
CO – 3	Develop quality circle can to me and to my organisation
CO – 4	To revoke quality increases my self- confidence, improves myself system.
CO – 5	To quality understand concept disposing the unwanted items.

CO NO	Course Outcomes STRATEGIC MANAGEMENT – S3CBB17
CO – 1	To enable the students to know about the strategies followed in an organization.
CO – 2	Explicate the vision and mission and objectives of strategic.
CO – 3	To categorize the corporate level strategies in an organization

<b>CO – 4</b>	Judge the strategic analysis followed in every organization that enhances the corporate level analysis.
<b>CO – 5</b>	Outline the mergers and acquisition strategies, strategic alliances.

<b>CO NO</b>	<b>Course Outcomes RDBMS AND RDBMS LAB– S3CBB1</b>
<b>CO – 1</b>	Prepare a table, add record, modify record, delete record in SQL.
<b>CO – 2</b>	Create a relational database using a key constraints.
<b>CO – 3</b>	Describe the basis of joins, set operator, sub queries.
<b>CO – 4</b>	Create a relational database using a E-R model.
<b>CO – 5</b>	Examine problems using procedure, trigger, function, and package.

<b>CO NO</b>	<b>Course Outcomes QUANTITATIVE TECHNIQUES &amp; OPERATIONS RESEARCH – S3ABB7</b>
<b>CO – 1</b>	Matrices and determinants method addition subtractionmultiplicationrank of matrices inverse of a matrices & linear evaluation.
<b>CO – 2</b>	Differentiate probability events laws of probability and addition and multiplication theorem.
<b>CO – 3</b>	Exprement the north west cornerule last cost method VAM method assignment problem.
<b>CO – 4</b>	Calculate game & strategies graphic solution saddle point &dominance property.
<b>CO – 5</b>	Illustrate network scheduling, PERT, CPM and network construction.

<b>CO NO</b>	<b>Course Outcomes ENTREPRENEURIAL DEVELOPMENT – S3EBB2</b>
<b>CO – 1</b>	To know about the various qualities and factors influencing an entrepreneur.
<b>CO – 2</b>	Understand and describe the concept of women entrepreneur and entrepreneurship.

<b>CO – 3</b>	Design new plan, organize and execute a project report for new venture.
<b>CO – 4</b>	Analyse various methods of project appraisal, institutions, support to entrepreneurship development.
<b>CO – 5</b>	Identify the government policies and incentives to the small enterprises.

<b>CO NO</b>	<b>Course Outcomes ACCOUNTING FOR MANAGERS – T3CBB23</b>
<b>CO – 1</b>	Analyze the concept of cost and management accounting.
<b>CO – 2</b>	Demonstrate how firms maintain stock level and material cost by analysing skills.
<b>CO – 3</b>	Assess marginal cost by implementing concepts of firms.
<b>CO – 4</b>	Analyze ratio and calculate their proportions.
<b>CO – 5</b>	Describe various types of budget analysing with simple problems (contrast).

<b>CO NO</b>	<b>Course Outcomes RESEARCH METHODOLOGY – T3CBB22</b>
<b>CO – 1</b>	Understand some basic concepts of research and methodologies.
<b>CO – 2</b>	To make a marketing survey for understanding the realities in conducting research.
<b>CO – 3</b>	Adequate knowledge on measurement and scaling techniques as well as the processing and analysis of data.
<b>CO – 4</b>	Calculate the correlation, Time series, and ANNOVA table with simple problems.
<b>CO – 5</b>	Illustrate hypothesis testing and that able to prepare the report writing.

<b>CO NO</b>	<b>Course Outcomes SERVICE MARKETTING – T3CBB24</b>
<b>CO – 1</b>	Relate the concept of service marketing and contrast the different goods & services.

<b>CO – 2</b>	Examine managing demand & supply.
<b>CO – 3</b>	Contrast different types of service marketing mix.
<b>CO – 4</b>	Explicate conceptualization of service product.
<b>CO – 5</b>	Know various major sectors service related to promotions and tools.

<b>CO NO</b>	<b>Course Outcomes INTRODUCTION TO VB &amp; VB LAB – T3ABB2</b>
<b>CO – 1</b>	illustrate visual basic anatomy and tools of VB.
<b>CO – 2</b>	Apply decision making branching and looping function in VB.
<b>CO – 3</b>	Apply array and its type, record in VB.
<b>CO – 4</b>	Compile of event driven program execution, flow control in visual basic program, understand the Enums, Control array, flex grid control, data control.
<b>CO – 5</b>	Develop report oriented application

<b>CO NO</b>	<b>Course Outcomes PRODUCTION MANAGEMENT – T3EBB5</b>
<b>CO – 1</b>	TO understand the basic concept of production management
<b>CO – 2</b>	To analyse the plant location and plant layout
<b>CO – 3</b>	Assess the maintenance management and describe the economics aspect of maintenance.
<b>CO – 4</b>	Demonstrate the production system and process of production
<b>CO – 5</b>	To identify the production planning and control and justify techniques.

<b>CO NO</b>	<b>Course Outcomes HUMAN RESOURCES MANAGEMENT – U3CBB19</b>
<b>CO – 1</b>	Recognize the basic concepts of human resource management.

<b>CO – 2</b>	Explicate the need for human resource that will enhance the planning skills.
<b>CO – 3</b>	Demonstrate the kinds of training and development.
<b>CO – 4</b>	To assess the employee's performance appraisal systems.
<b>CO – 5</b>	Recognize the grievance handling system and emerging issues in employee relations.

<b>CO NO</b>	<b>Course Outcomes INTERNATIONAL MARKETING – U3CBB20</b>
<b>CO – 1</b>	Recall the scope and barriers of International Marketing.
<b>CO – 2</b>	Explore the EXIM procedure in international marketing.
<b>CO – 3</b>	Analyze and remember importance of import and export regulations of EXIM policy.
<b>CO – 4</b>	Judge, how IMF and commercial bank act as a financial advisory institution.
<b>CO – 5</b>	State the pre - import procedure and documentation.

<b>CO NO</b>	<b>Course Outcomes FINANCIAL MANAGEMENT – U3CBB21</b>
<b>CO – 1</b>	Recall the concept of financial management & function of financial managers.
<b>CO – 2</b>	Calculate various source of capital.
<b>CO – 3</b>	Examine working capital management of organization.
<b>CO – 4</b>	Explicate capital budgeting method buy using techniques.
<b>CO – 5</b>	Explain different types of dividend forms examine factors & understand the theories of dividend.

<b>CO NO</b>	<b>Course Outcomes MULTIMEDIA AND MULTIMEDIA LAB – U3ABB1</b>
<b>CO – 1</b>	Infer with various technical aspects of multimedia systems and its element, hardware, software, operating system.

<b>CO – 2</b>	Describe various text, text element, graphic, image, colors.
<b>CO – 3</b>	Describe various digital video and audio and its type, computer animation.
<b>CO – 4</b>	Apply the tools and technique that perform creative, editing, deleting multimedia application.
<b>CO – 5</b>	Develop internet based learning of multimedia tool.

### **COMMON TO ALL UNDER GRADUATE DEPARTMENT**

<b>CO NO</b>	<b>Course Outcomes VALUE EDUCATION – Q4VE</b>
<b>CO – 1</b>	To give students a deeper understanding about the purpose of life.
<b>CO – 2</b>	Students will understand the importance of value based living.
<b>CO – 3</b>	To help the students impart knowledge on essential qualities to become a leader.
<b>CO – 4</b>	Students will be able to lead a balanced life with emotional stability.
<b>CO – 5</b>	Students will be able to realize their role and contribution to the nation building.

<b>CO NO</b>	<b>Course Outcomes SOFT SKILLS – T4SK1</b>
<b>CO – 1</b>	To create self-confident individuals by mastering the common soft skills.
<b>CO – 2</b>	Students will be able to improve their non-verbal communication skills.
<b>CO – 3</b>	Students will be equipped to apply interpersonal skills in their personal and professional life.
<b>CO – 4</b>	Student will be able to apply the principles of planning and prioritizing in their life.
<b>CO – 5</b>	Students will be able to realize their role and contribution to the nation building.

<b>CO NO</b>	<b>Course Outcomes ENVIRONMENTAL STUDIES – P4ES1</b>
<b>CO – 1</b>	To acquire skills to help people identifying and creating solutions for the environment related problems.
<b>CO – 2</b>	To provide understanding how media professionals can contribute in creating awareness about environmental issues.

<b>CO – 3</b>	To become aware about the various types of pollution its sources, effects and control measure.
<b>CO – 4</b>	To become aware of the biodiversity, conservation method and factors for the loss of biodiversity.
<b>CO – 5</b>	To understand the concept of climate change, global warming, acid rain, various disasters and its migration measures.

<b>CO NO</b>	<b>Course Outcomes GENERAL KNOWLEDGE – U4GK</b>
<b>CO – 1</b>	To impart the extensive knowledge about general knowledge, general awareness and contemporary activities at local, regional, national and international level about socio – economic issues.
<b>CO – 2</b>	To inculcate the extensive knowledge about general knowledge, general awareness and contemporary activities at local, regional, national and international level about educational and cultural issues.
<b>CO – 3</b>	To develop the extensive knowledge about general knowledge, general awareness and contemporary activities at local, regional, national and international level about media related issues.
<b>CO – 4</b>	To develop into understand in the Mental Ability and Tamil Literature
<b>CO – 5</b>	To gain Knowledge for all recruitment and competitive examinations

**NME – Non Major Elective**

**SSP – Self Study Paper**