

## DEPARTMENT OF TAMIL

### First Semester

<b>22ACCTA1 இக்கால இலக்கியம்</b>	
<b>COs</b>	On successful completion of the course, the student will be able to
<b>CO1</b>	தமிழ் இலக்கியத்தின் மீதான ஆர்வம் மிகும்.
<b>CO2</b>	புதிய இலக்கியவடிவங்களை அறிவர்.
<b>CO3</b>	கவிதை, சிறுகதை, நாவல் ஆகியவற்றைப் படைக்க முயல்வர்.
<b>CO4</b>	நாடகத்தின் கூறுகளைக் கற்பர்.
<b>CO5</b>	கட்டுரையின் தனித்தன்மைகளை அறிவர்

<b>22ACCCT2 நன்னூல் எழுத்ததிக்காரம்</b>	
<b>COs</b>	On successful completion of the course, the student will be able to
<b>CO1</b>	தமிழைப் பிழையின்றி எழுதும் திறன் பெறுவர்.
<b>CO2</b>	வல்லினம் மிகும் இடங்கள், மிகா இடங்களை அறிவர்.
<b>CO3</b>	தமிழ்மொழி இலக்கணத்தில் புலமை பெறுவர்
<b>CO4</b>	எழுத்துக்கள் பெறுகின்ற புணர்ச்சிநிலைகளை அறிவர்.
<b>CO5</b>	எழுத்திலக்கணத்தின் கூறுகள் பலவற்றையும் தெளிவுறக் கற்பர்.

<b>22FACTA1 தமிழ் இலக்கியவரலாறு</b>	
<b>COs</b>	On successful completion of the course, the student will be able to
<b>CO1</b>	தமிழ் இலக்கியங்கள் காலந்தோறும் தோன்றிவளர்ந்தவரலாற்றை அறிவர்.
<b>CO2</b>	இலக்கியங்களுக்கும் அரசியல் வரலாற்றுக்கும் இடையே உள்ள உறவை அறிவர்.
<b>CO3</b>	இலக்கிய நூல்களின் தோற்றக் காரணிகளை அறிந்துகொள்வர்.
<b>CO4</b>	தமிழின் தொன்மைக் கால இலக்கியங்கள் குறித்த புரிதலைப் பெறுவர்.
<b>CO5</b>	தமிழ் இலக்கியத்தின் பல்வேறுவகைகளையும், வடிவங்களையும் காலநிரலில் கற்பர்.

## Second Semester

22ACCTA3 சிற்றிலக்கியம்	
COs	On successful completion of the course, the student will be able to
CO1	தமிழ் இலக்கியங்களின் வளத்தினை அறிவர்
CO2	தமிழ் இலக்கியங்களின் வகைகளை உணர்வர்.
CO3	சிற்றிலக்கியங்கள் வழிசமயம் சார்ந்த செய்திகளை அறிவர்
CO4	சிற்றிலக்கியங்கள் வரலாற்றுச் செய்திகளைப் பகரும் தன்மையை அறிவர்
CO5	சிற்றிலக்கியங்கள் வெளிப்படுத்தும் இலக்கிய நுட்பங்களைக் கற்பர்.

22ACCTA4 நன்னூல் சொல்லதிகாரம்	
COs	On successful completion of the course, the student will be able to
CO1	தமிழ்மொழியின் சொல் இலக்கணத்தை அறிவர்.
CO2	தமிழ்ச் சொற்களின் பயன்பாட்டை அறிவர்
CO3	சொற்களின் வகைகளை இலக்கணநிலையில் இனங்காணும் அறிவைப் பெறுவர்.
CO4	மொழிநடையில் தேர்ச்சி பெறுவர்
CO5	தமிழைப் பிழையின்றி பேசுகின்ற ஆற்றலைப் பெறுவர்.

22FACTA2 தமிழகவரலாறும் மக்கள் பண்பாடும்	
COs	On successful completion of the course, the student will be able to
CO1	தமிழ்ச் சமூகம், பண்பாடு, பொருளாதாரம் குறித்தவரலாற்று உணர்வைப் பெறுவர்
CO2	தாய்மொழி மற்றும் தாய்நாட்டு உணர்வைப் பெறுவர்
CO3	தமிழகத்தில் ஏற்பட்ட பண்பாட்டுப் படையெடுப்புகளை உணர்வர்.
CO4	தமிழகத்தில் நிகழ்ந்தவரலாற்றுச் சுவடுகளைத் தெளிவுறக் கற்பர்.
CO5	தமிழக அரசின் போட்டித் தேர்வுகளுக்கு அறிவூட்டம் பெறுவர்.

### Third Semester

<b>22ACCTA5 சமய இலக்கியம்</b>	
<b>COs</b>	On successful completion of the course, the student will be able to
<b>CO1</b>	காலந்தோறும் பக்தி இலக்கியம் வளர்ந்துவந்துள்ளவரலாற்றைஅறிவர்.
<b>CO2</b>	சைவ,வைணவசமயத்தின் பக்திநிலைகளையும் சமயக் கோட்பாடுகளையும் உணர்வர்.
<b>CO3</b>	சைவ,வைணவசமயத்தின் பக்திநிலைகளையும் சமயக் கோட்பாடுகளையும் உணர்வர்.
<b>CO4</b>	கிறித்துவ, இசுலாமியசமயத்தின் சமயநிலைகளைக் கற்பர்.
<b>CO5</b>	அனைத்துச் சமயங்களும் வலியுறுத்தும் மனிதம் ஒன்றேஎன்பதைஉணர்வர்.

<b>22ACCTA6 நம்பியகப்பொருள் புறப்பொருள் வெண்பாமாலை</b>	
<b>COs</b>	On successful completion of the course, the student will be able to
<b>CO1</b>	அகத்திணைகள் பற்றிஅறிவர்.
<b>CO2</b>	உள்ளுறை, இறைச்சிபோன்றஉத்திநுட்பங்களைத் தெளிவர்.
<b>CO3</b>	புறத்திணைகள் பற்றியஅறிவைப் பெறுவர்.
<b>CO4</b>	தமிழில் அக,புற இலக்கண நூல்களின் வளத்தினைக் கற்பர்.
<b>CO5</b>	பழங்காலஅகவாழ்க்கை,புறவாழ்க்கைநெறிகளைஉணர்வர்.

<b>22SACTA1 சுற்றுலாவியல்</b>	
<b>COs</b>	On successful completion of the course, the student will be able to
<b>CO1</b>	தமிழகச் சுற்றுலாத் தளங்கள் குறித்தஅறிவைப் பெறுவர்
<b>CO2</b>	பயண இலக்கியங்கள் பற்றிஅறிந்துகொள்வர்.
<b>CO3</b>	சுற்றுலாவின் இன்றியமையாமையைக் கற்பர்.
<b>CO4</b>	சுற்றுலாவினால் ஏற்படும் சந்தை,பொருளாதாரஅறிவைப் பெறுவர்.
<b>CO5</b>	சுற்றுலாவிடுதிகள் மற்றும் முகவர்கள் குறித்துஅறிவர்.

## Fourth Semester

22ACCTA7 காப்பியம்	
<b>COs</b>	On successful completion of the course, the student will be able to
<b>CO1</b>	காப்பிய இலக்கியத்தின் சிறப்புகளைஅறிவர்.
<b>CO2</b>	காப்பியக் கதைகள்வழிஅறச்சிந்தனைகளைப் பெறுவர்
<b>CO3</b>	பல்வேறுகாப்பியவடிவங்களைப் பற்றியஅறிவைப் பெறுவர்
<b>CO4</b>	தமிழ் இலக்கியவரலாற்றில் காப்பியங்களின் படிநிலைகளைஉணர்வர்.
<b>CO5</b>	தமிழ்க் காப்பியங்களின் கொள்கைகளையும் இலக்கியச் சுவைகளையும் கற்பர்.

22ACCTA8 இக்காலத் தமிழ் இலக்கணம்	
<b>COs</b>	On successful completion of the course, the student will be able to
<b>CO1</b>	மொழியானதுமாறும்,வளரும் தன்மையுடையதுஎன்பதைஉணர்வர்.
<b>CO2</b>	மொழியைச் சிறப்பாகக் கையாளும் திறம் பெறுவர்.
<b>CO3</b>	மரபுமாற்றம் பற்றிஅறிவதால் மரபிலக்கணத்தில் மேலும் தெளிவுபெறுவர்
<b>CO4</b>	இக்காலத் தமிழில் தோன்றியுள்ளபுதிய இலக்கணக் கூறுகளைக் கற்பர்.
<b>CO5</b>	தமிழ் மரபிலக்கணத்தைத் தற்காலமொழியியல் பார்வையோடு இணைத்துக் கற்பர்.

22SACTA2 தமிழகக் கோயில் கலையும் நிர்வாகமும்	
<b>COs</b>	On successful completion of the course, the student will be able to
<b>CO1</b>	பழந்தமிழரின் கட்டடக்கலைஅறிவைத் தெளிவர்.
<b>CO2</b>	தமிழகமன்னர்களின் பல்வேறுபட்டகோயிற்கலைநுணுக்கங்களைஅறிவர்.
<b>CO3</b>	தொல்பொருள் துறை,அறநிலையத்துறையின் செயல்பாடுகள்,பொறுப்புகளைக் கற்பர்.
<b>CO4</b>	கோயில் நிர்வாகக் கலைபற்றிஅறிவர்.
<b>CO5</b>	அரசுப் பணிவாய்ப்புகளில் முன்னுரிமைபெறுவர்.

## Fifth Semester

22ACCTA9 : நீதி இலக்கியம்	
<b>COs</b>	On successful completion of the course, the student will be able to
<b>CO1</b>	தமிழ்மொழியின் நீதி (அற) இலக்கியங்கள் பற்றிய அறிவினைப் பெறுவர்
<b>CO2</b>	தனிமனித வாழ்வியலுக்கான அடிப்படை அறங்களைக் கற்பர்.
<b>CO3</b>	சமூக வாழ்வியலுக்கான பொறுப்பு நிலைகளை உணர்வர்
<b>CO4</b>	இலக்கியங்கள் வெளிப்படுத்தும் சமூகப் பொறுப்புணர்ச்சியை அறிவர்.
<b>CO5</b>	நீதி (அற) இலக்கியங்கள் உணர்த்தும் சமூக, அரசியல் பரிணாமங்களைக் கற்பர்.

22ACCTA10: ஒப்பிலக்கியம்	
<b>COs</b>	On successful completion of the course, the student will be able to
<b>CO1</b>	ஒப்பிலக்கியம் குறித்த அறிவைப் பெறுவர்.
<b>CO2</b>	இலக்கியவகைகளில் உள்ள கருத்தியல்புகளை அறிவர்.
<b>CO3</b>	காலந்தோறும் வளர்ந்துள்ள இலக்கியங்களின் வடிவம், பொருண்மைகளை ஒப்பிடுவர்.
<b>CO4</b>	பல்வேறு இலக்கியங்களுக்குள் இருக்கும் வாழ்வியல் விழுமியங்களைக் கற்பர்.
<b>CO5</b>	இலக்கியங்களை ஒப்பிடுவதன் வாயிலாகத் தாய்மொழி இலக்கியத்தின் சிறப்பினைத் திறனாய்வு செய்வர்.

22ACCTA11: யாப்பருங்கலக்காரிகைருதண்டியலங்காரம்	
<b>COs</b>	On successful completion of the course, the student will be able to
<b>CO1</b>	தமிழ் இலக்கியப் பாடல்களின் செய்யுள் உறுப்பு முறைகளை அறிவர்
<b>CO2</b>	பாக்களின் வகைகளையும் இனங்களையும் தெளிவுறக் கற்பர்.
<b>CO3</b>	தமிழ் இலக்கியவரலாற்றில் அணி இலக்கணமரபைத் தெளிவர்.
<b>CO4</b>	அணிகளின் நுட்பமான வேறுபாடுகளை அறிவர்.
<b>CO5</b>	இலக்கியங்களில் கையாளப்பட்டிருக்கும் அணிகளின் வகைகளையும் சுவைகளைக் கற்பர்.

22ACCTA12 : மொழியியல்	
<b>COs</b>	On successful completion of the course, the student will be able to
<b>CO1</b>	மொழியியல் பற்றிய அறிமுகத்தைக் கற்பர்.
<b>CO2</b>	மொழியியல் கோட்பாடுகளைத் தெளிவுறப் பயில்வர்
<b>CO3</b>	மரபிலக்கணத்தின் இக்கால வளர்ச்சியே மொழியியல் என்பதை அறிவர்.
<b>CO4</b>	மொழியின் ஒலி, ஒலியன், உருபன், தொடர், சொற்பொருள் வகைகள், மாற்றங்கள் குறித்துக் கற்பர்.
<b>CO5</b>	காலந்தோறும் மொழியில் ஏற்பட்ட, ஏற்படுகின்ற மாற்றங்களை உணர்வர்.

22AMBETA1 நாட்டுப்புற இலக்கியம்	
COs	On successful completion of the course, the student will be able to
CO1	நாட்டுப்புற இலக்கியங்களின் தனித்தன்மைகளையும் சிறப்புகளையும் உணர்வர்
CO2	நாட்டுப்புற இலக்கியங்கள்வழிமக்களின் வாழ்வியலைஅறிவர்.
CO3	தமிழ்ச் சமூகத்தின் தொன்றுதொட்டமரபுகளைத் தெளிவர்
CO4	நாட்டுப்புற இலக்கியம் மூலம் வரலாற்றுச் செய்திகளைக் கற்பர்
CO5	நாட்டுப்புற இலக்கியங்களில் ஆய்வுசெய்யும் ஆர்வம் பெறுவர்

22AMBETA2 படைப்பிலக்கியம்	
COs	On successful completion of the course, the student will be able to
CO1	தமிழ் யாப்பிலக்கணமரபைஅறிவர்
CO2	இலக்கியப் படைப்பாக்கத் திறன் பெறுவர்.
CO3	நாடகங்களைப் படைக்கும் திறன் பெறுவர்
CO4	நிகழ்ச்சித் தொகுப்புகளுக்கானசொல் நயங்களையும் திறன்களையும் அறிவர்
CO5	பல்வேறுஉரைநடைவகைகளைக் கையாள்வதில் பயிற்சிபெறுவர்

### Sixth Semester

22ACCTA13 சங்க இலக்கியம்	
COs	On successful completion of the course, the student will be able to
CO1	பழந்தமிழ் இலக்கியமரபைஅறிவர்
CO2	சங்க இலக்கியங்களில் உள்ளஅழகியல் கூறுகளைஉணர்வர்
CO3	பழந்தமிழர்களின் வாழ்வியல் அறங்கள்,முறைகளைஅறிவர்
CO4	தமிழ் இலக்கியவரலாற்றில் பண்டையதமிழ் இலக்கியங்களின் தனித்தன்மைகளைஅறிவர்
CO5	புற இலக்கியங்கள்வழிதமிழகவரலாற்றுச் செய்திகளைஅறிவர்

22ACCTA14 மொழிபெயர்ப்பியல்	
COs	On successful completion of the course, the student will be able to
CO1	மொழிபெயர்ப்பியல் குறித்தஅறிவைப் பெறுவர்.
CO2	மொழிபெயர்ப்பின் மூலம் பிறநாட்டவர்களின் இலக்கியத் தன்மைகளைஅறிவர்.
CO3	மொழிபெயர்ப்பு நூல்களைத் தமிழ்மொழி இலக்கியங்களோடுபொருத்திப் பார்க்கும் திறன்பெறுவர்.
CO4	வெவ்வேறுமொழிபெயர்ப்பு நூல்களைஒப்பிடும் திறன் பெறுவர்.
CO5	உலகளவில் நிகழ்ந்ததரமானமொழிபெயர்ப்புகளைப் பகுத்துப் ஆராயும் திறன் பெறுவர்.

**22ACCTA15 தமிழின் செம்மொழிப் பண்புகள்**

<b>COs</b>	On successful completion of the course, the student will be able to
<b>CO1</b>	உலகச் செம்மொழிகளுள் தமிழ் ஒன்றுஎன்பதைத் தெளிவர்.
<b>CO2</b>	தமிழுக்குச் செம்மொழித் தகுதிகிடைத்திடகாரணமாகவிருந்ததமிழ்ச் செவ்விலக்கியங்களை அறிவர்.
<b>CO3</b>	தமிழ்ச் செவ்விலக்கியங்களின் வகைகளைஅறிவர்.
<b>CO4</b>	தமிழ்ச் செவ்விலக்கியங்கள் தரும் வாழ்வியல் விழுமியங்களைஉணர்வர்.
<b>CO5</b>	தமிழ்ச் செவ்விலக்கியங்களின் பாடுபொருள் சிறப்புகளைக் கற்பர்.

**22AMBETA2 கல்வெட்டியல்**

<b>COs</b>	On successful completion of the course, the student will be able to
<b>CO1</b>	தமிழ்மொழியின்,பண்பாட்டின் தொன்மை,பெருமையைஅறிவர்
<b>CO2</b>	தமிழ்மொழியின், இனத்தின் வரலாற்றைஉணர்வர்.
<b>CO3</b>	பழந்தமிழ் எழுத்துமுறைகளைஅறிவர்.
<b>CO4</b>	பண்டையகல்வெட்டுகள் பற்றியதெளிவைப் பெறுவர்.
<b>CO5</b>	கல்வெட்டுக்கள் உணர்த்தும் பல்வேறுசெய்திகளையும் வரலாறுகளையும் அறிவர்

**22AMBETA3,தழியல்**

<b>COs</b>	On successful completion of the course, the student will be able to
<b>CO1</b>	இதழியல் - செய்திகள் குறித்தஅறிவைப் பெறுவர்.
<b>CO2</b>	செய்திகளைத் திரட்டும் முறைமைகளைமாணவர்கள் அறிவர்.
<b>CO3</b>	தழியலின் சட்டங்களைமாணவர்கள் தெளிவுறக் கற்பர்.
<b>CO4</b>	மாணவர்கள் செய்திகளைவாசிக்கும் பழக்கத்திற்குஉள்ளாகுவர
<b>CO5</b>	தழியல் சார்ந்தபணிவாய்ப்புகளுக்குமாணவர்கள் திறனுடையவர்கள் ஆவர்.

## DEPARTMENT OF ENGLISH

### First Semester

22ACCEN1 PROSE	
COs	After completion of the course the students will be able to realize the following out comes
CO1	To develop a knowledge about different genres of prose
CO2	To get an idea about the development of prose through ages
CO3	To expose the students early English Literature and transition
CO4	To understand the linguistic changes that took place during this period
CO5	To provide knowledge about socio-cultural and historical development of this period

22ACCEN2 WORLD SHORT STORIES	
COs	After completion of the course the students will be able to realize the following outcomes
CO1	Analyze the style of writing and examine the story, plot and themes
CO2	Understand the meanings of difficult words/phrases
CO3	Write or narrate a story creatively in own words
CO4	Recall and relate stories from different parts of the world
CO5	Classify the different types of characters in real life situations

22AFACEN1 SOCIAL HISTORY OF ENGLAND	
COs	After completion of the course the students will be able to realize the following outcomes
CO1	Acquire knowledge of the course of British social history
CO2	Realize the major trends which have shaped English society.
CO3	Identify the key themes which encapsulate each period.
CO4	Relate the socio historical background to literature.
CO5	Explore the contemporary social history of England.



## Second Semester

<b>22ACCEN3 POETRY</b>	
COs	After completion of the course the students will be able to realize the following outcomes
CO1	Identify the essential elements of poetry.
CO2	Explain the figures of speech used in the poems.
CO3	Understand the different types of poetry.
CO4	Analyze myths and biblical references of the poem
CO5	Examine the contemporary life of England as portrayed

<b>22ACCEN4 FICTION</b>	
COs	After completion of the course the students will be able to realize the following outcomes
CO1	Understand fiction as a literary genre
CO2	Gain a grip over skimming and scanning methods of reading
CO3	Develop the various methods of storytelling
CO4	Transform fiction into modern screen play
CO5	Familiarize themselves with contemporary popular fiction

<b>22AFACEN2 LITERARY FORMS</b>	
COs	After completion of the course the students will be able to realize the following outcomes
CO1	Identify a wide variety of forms , styles and genres in English literature
CO2	Understand the significance of these forms in determining the meaning of the texts.
CO3	Have access to elementary literary vocabulary
CO4	Possess the basic skills required for the reading and understanding of literature
CO5	Observe present trends in literary writings

## Third Semester

<b>22ACCEN5 POETRY II</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Recognize poetry from a variety of cultures, languages and historic periods
CO2	Explain the features of different types of poetry
CO3	Recognize the influence of culture and experience of poets
CO4	Read and discuss selected poems in translation and enhance their writing skills
CO5	Identify the variations of poetic forms

<b>22ACCEN6 WORLD ONE ACT PLAYS</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Identify and discuss the theoretical elements of one- act plays
CO2	Explore the diverse cultures , traditional approaches and values in a play
CO3	Analyze critically the themes, lot and cultural aspects of the play
CO4	Complete reading and writing enhanced with expression and style
CO5	Explore the techniques of staging one-act plays

<b>22ASACEN1 HISTORY OF ENGLISH LITERATURE I</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Understand the growth and development of English literature
CO2	Gain perspective on the different issues and themes presented during each period
CO3	Acquired knowledge about the major writers and their contributions to English literature
CO4	Evaluate the way socio-cultural and historical phenomena influenced literary writing
CO5	Comment on the influence of classical writers in the 21 <sup>st</sup> century

## Fourth Semester

<b>22ACCEN7 DRAMA</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Understand the theatrical skills
CO2	Opt for performance studies as a field of research and career
CO3	Compose their own versions of classical drama
CO4	Imbibe the ability to direct short films reels and trolls for various social media and as OERs
CO5	Develop the expertise in the techniques of film adaptation

<b>22ACCEN8 INTRODUCTION TO LANGUAGE AND LINGUISTICS</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Understand the discourse of linguistics
CO2	Describe the theoretical and practical manifestations of linguistics
CO3	Explain the origin of the English Language and its development
CO4	Classify and describe the English speech sounds and understand speech patterns in sentences
CO5	Gain knowledge of the main concepts of syntax and semantics

<b>22ASACEN2 HISTORY OF ENGLISH LITERATURE II</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Understand the growth and development of English literature
CO2	Gain perspective on the different issues and themes presented during each period
CO3	Acquire knowledge about the major writers and their contributions to English literature
CO4	Evaluate the way socio-cultural and historical phenomena influenced literary writing
CO5	Develop the basic skills to prepare the competitive examinations

## Fifth Semester

<b>22ACCEN9 SHAKESPEARE</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Understand the personality traits of dominant characters
CO2	Gain a working knowledge of communicative strategies and like skills
CO3	Experience and derive meaning from life-like situations
CO4	Evaluate Shakespeare's characters in today's society
CO5	Recognize the greatness of Shakespeare in the usage of language and characterization

<b>22ACCEN10 PRINCIPLES OF LITERARY CRITICISM</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Gain knowledge of various critical theories, approaches and schools of thought
CO2	Identify the major contributors to literary criticism and their ideas
CO3	Develop skills to analyze and interpret texts critically by close reading
CO4	Attempt practical criticism of short plays, passages and poems
CO5	Understand literature as more than a creative acts

<b>22ACCEN11 AMERICAN LITERATURE</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Obtain knowledge about the major writers and their contribution to American literature
CO2	Describe the significant aspect of various genres of American literature
CO3	Examine the issues discussed in the text within the socio-historic and cultural context
CO4	Apply the knowledge gained in the study of literature and become a critical reader
CO5	Understand multi-culturalism in America

<b>22ACCEN12 HISTORY OF LANGUAGE AND PHONETICS</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Describe the origin of the language and its development
CO2	Differentiate among different varieties of English spoken all over the world
CO3	Classify and describe the sounds in English language
CO4	Understand how word stress and accent help better pronunciation
CO5	Develop ability to transcribe sentences and passages into phonetics symbols

<b>22AMBEEN2 TRANSLATION : THEORY AND PRACTICE</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Understand the significance of translation studies in enriching literature
CO2	Explore the challenges and difficulties of translation across languages
CO3	Understand and appreciate works of different languages by reading the translated works in English
CO4	Develop translation skills by reading and translating small pieces of fiction into English
CO5	Analyze the issues related to cultural and untranslatability

## Sixth Semester

<b>22ACCEN13 INDIAN LITERATURE IN ENGLISH</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Understand the major movements and writers of Indian writing in English
CO2	Analyze and appreciate the concept of Indianness found in the works of Indian writers
CO3	Recognize the artistic and innovative use of language employed by the writers
CO4	Appreciate values and traditions represent in literary text of colonial and post colonial period
CO5	Develop an insight in Indian literature and Indian values

<b>22ACCEN14 COMMONWEALTH LITERATURE</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Appreciate the literary works of common wealth countries after understanding the content related to the continents
CO2	Evaluate the major themes and literary trends in common wealth literature
CO3	Analyze and assess the post colonial aspect in commonwealth literature
CO4	Refine the skills of oral and written presentation and discuss the hurdles in creative writing
CO5	Understand the global relevance of common wealth literature in the contemporary world

<b>22ACCEN15 ENGLISH LANGUAGE TEACHING</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Analyze the significant of English as a second language in India
CO2	Describe the various approaches and methods in language teaching
CO3	Classify the different methods of teaching English and evaluation
CO4	Explain the principles of testing and evaluation and its types
CO5	Comment on the contemporary instructional aids used in teaching English

<b>22AMBEEN3 INTRODUCTION TO JOURNALISM</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Trace the history of journalism and the different stages of its development
CO2	Understand the factors that influence the message in a diverse, globalized media landscape
CO3	Create journalistic works including news stories , press releases, and advertising copy, following accepted journalistic standards
CO4	Focus on an area of specialization that draws on the creativity and entrepreneurial spirit of the student
CO5	Develop the ability to write new stories

<b>22AMBEEN4 ENGLISH FOR COMPETITIVE EXAMINATIONS</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Acquire an appreciable understanding of grammar , comprehension and vocabulary
CO2	Produce grammatically and idiomatically correct spoken and written discourse
CO3	Spot language errors and correct them
CO4	Understand basic sentence patterns and various types of phrases
CO5	Learn to perform and excel in the competitive examinations

# M.A ENGLISH

## First Semester

<b>P22ENCC11 LANGUAGE AND LINGUISTICS</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	<u>Understand how language, society and culture are related</u>
CO2	Describe the theoretical and practical manifestations of linguistics
CO3	Understand the discourse of linguistics
CO4	Explain the various implications of word formation
CO5	Explain the origin of the English language and its development

<b>P22ENCC12 MODERN LITERATURE I</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Demonstrate the literary techniques and style employed during the classical age
CO2	Promote the learning of the various poetic devices
CO3	Establish a link between literature and society
CO4	Trace the development of the English language and society
CO5	Equip the readers with the technique of teaching English literature

<b>P22ENCC13 MODERN LITERATURE II</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Demonstrate the literary techniques and style employed during the classical age
CO2	Promote the learning of the various poetic devices
CO3	Establish a link between literature and society
CO4	Trace the development of the English language and society
CO5	Equip the readers with the technique of teaching English literature

<b>P22ENCC1A INTRODUCTION TO COMPARATIVE LITERATURE</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Explain the evaluation of Comparative literature
CO2	Describe the salient features of the French and American schools of CL
CO3	Realize the methodology employed in influence and parallel studies
CO4	Spell out the relationship literature has with society and religion
CO5	Comment on the relationship literature has with psychology and various arts

<b>P22EN1A ASIAN LITERATURE IN ENGLISH</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Students will be able to appreciate and asses the Asian Literature written in English
CO2	Ecognize the universality of human experiences reflected in these works
CO3	Analyze elements of literature such as imagery, theme, motifs, style, tone etc...
CO4	Compare and contrast the works of authors of different cultural backgrounds with deal with similar themes
CO5	Develop cultural awareness and compare that with the learners cultural background

## Second Semester

### **P22ENCC21 MODERN LITERATURE III**

COs	After completion of the course the students will be able to realize the following out comes
CO1	Develop knowledge of principal works of Modern Literature from 1798 to 1832
CO2	Create an awareness of the characteristics of Romantic poetry
CO3	Acquire knowledge of the political, social and intellectual background of the age through the works of various writers of the Romantic period
CO4	Understand and deploy a range of terms and concepts pertaining to literature
CO5	Establish the link between man and nature through romantic poetry

### **P22ENCC22 MODERN LITERATURE IV**

COs	After completion of the course the students will be able to realize the following out comes
CO1	Appreciate the issues such as capitalism, race, the evolution of democracy that shaped the 19 <sup>th</sup> century England
CO2	Acquire in-depth knowledge of the religious, socio-intellectual and cultural thoughts of the period
CO3	Analyze and examine the representation of the characteristics of the era in the literature
CO4	Analyze the thematic concerns such as male female gender roles, history and politics, class and industrialization, religion and sexuality
CO5	Examine the aesthetic and political shifts from the earlier periods

### **P22ENCC23 SHAKESPEARE**

COs	After completion of the course the students will be able to realize the following out comes
CO1	Understand the socio-political influences of Britain during the Shakespearean age
CO2	Appreciate the characterization, dramatic and poetic techniques of Shakespeare
CO3	Examine Shakespeare's choice of subject matter and his use of the form of tragic-comedy
CO4	Discuss the characteristic features of Shakespearean stage and Shakespeare's skill in affecting catharsis through his tragedies
CO5	Analyze the technique of disguise in Shakespeare's plays, the reason behind it and discuss the significance of women characters in his plays

### **P22ENCC2A ENGLISH LANGUAGE TEACHING**

COs	After completion of the course the students will be able to realize the following out comes
CO1	Describe the role of mother tongue in teaching English in India
CO2	Comment on the contemporary theories of Second Language Acquisition
CO3	Describe the various methods of English Language Teaching
CO4	Describe the four different skills of language acquisition
CO5	Elucidate the major steps in Lesson Plan preparation

**P22ENE2A RESEARCH METHODOLOGY**

COs	After completion of the course the students will be able to realize the following out comes
CO1	Define research
CO2	Differentiate the types of research
CO3	Describe the use of library in academic research
CO4	Comment on the different types of note making
CO5	Explain the methods of outlining

**P22ENNME1 ENGLISH FOR EFFECTIVE COMMUNICATION**

COs	After completion of the course the students will be able to realize the following out comes
CO1	Acquire the four language skills
CO2	Integrate the language skills and use them effectively in day-to-day communication
CO3	Apply effectively the nuances of speaking skills in dialogues, discussions and public speeches
CO4	Understand the reading an comprehensive skills and analyze the comprehension passages
CO5	Incorporate the writing skills in drafting letters and creating their own resume



## Third Semester

<b>P22ENCC31 INDIAN ENGLISH LITERATURE</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Discuss the different phases evolution of Indian writing in English
CO2	Explain the Indianness reflected in the texts
CO3	Depict the various customs and traditions through which the writers portray the Indian life
CO4	Bring out the autobiographical elements of Indian Writers in English
CO5	Comment on the pluralistic aspects of Indian culture and identity

<b>P22ENCC32 AMERICAN LITERATURE</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Acquire adequate knowledge of various American authors and their works
CO2	Gather a comprehensive idea of the evolution of different genres in American Literature
CO3	Acquire literary sensibility to appreciate the innovative narratological techniques employed by American writers
CO4	Point out the religious and cultural temperament of the period and familiarize the various literary movements that flourished in America
CO5	Interpret the different genres and the contribution of the writers prescribed for study

<b>P22ENCC33 LITERARY CRITICISM</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Identify different schools and principles of literary criticism
CO2	Acquire the knowledge about the different methods of literary criticism
CO3	Distinguish between the various approaches to literary texts
CO4	Relate literature to life and analyze the texts in the light of socio-political and historical backgrounds
CO5	Obtain a literary acumen to face challenging competitive examinations like NET/SET etc., with confidence

<b>P22ENCC3A WORLD CLASSICS IN TRANSLATION</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Identify and discuss seminal classics across the globe
CO2	Asses the translation process involved in the classical texts
CO3	Appreciate characterization and themes of the literary works
CO4	Distinguish various literary techniques employed by the classical writers
CO5	Understand literary traditions around the world

<b>P22ENE3A ENGLISH LITERATURE FOR COMPETITIVE EXAMINATIONS</b>	
COs	After completion of the course the students will be able to realize the following out comes
CO1	Understand the test pattern of various competitive exams
CO2	Know the development of English Literature during different periods
CO3	Understand the growth of English language teaching and its importance
CO4	Identify their unique strategy in preparation for competitive examination
CO5	Acquire insights the prepare for the national level test independently

**P22ENNME2 ENGLISH FOR EFFECTIVE COMMUNICATION II**

COs	After completion of the course the students will be able to realize the following out comes
CO1	Acquire the four language skills
CO2	Integrate the language skills and use them effectively in day-to-day communication
CO3	Apply effectively the nuances of speaking skills in dialogues , discussions and public speeches
CO4	Understand the reading and comprehensive skills and analyze the comprehension passage
CO5	Incorporate the writing skills in drafting letters and creating their own resume.

**Fourth Semester****P22ENCC41 POSTCOLONIAL LITERATURE**

COs	After completion of the course the students will be able to realize the following out comes
CO1	Appreciate the writers and their contribution to the postcolonial literature
CO2	Identify and understand vital postcolonial authors and texts in their historical and cultural contexts
CO3	To define and organize central terms and concepts in postcolonial studies
CO4	To understand the struggle for freedom, transition and comprehending the phase of independence
CO5	To read, comprehend, and engage with postcolonial literary criticism

**P22ENCC42 LITERARY THEORY**

COs	After completion of the course the students will be able to realize the following out comes
CO1	Understand the key concepts in literary theory
CO2	Explain the meaning, significance, and value of specific literary theoretical works
CO3	Develop own interpretation of literary text using the theoretical background
CO4	Study the various schools of critical theories in 20th century
CO5	Explore possible applications of critical theory to various literary texts

**P22ENIBC INTRODUCTION TO JOURNALISM AND MASS COMMUNICATION**

COs	After completion of the course the students will be able to realize the following out comes
CO1	Chose a career in the field of Journalism
CO2	Become a freelance writer
CO3	Report news stories, press releases
CO4	Acquire the knowledge of proofreading
CO5	Write features and articles

## DEPARTMENT OF BUSINESS ADMINISTRATION

### First Semester

	<b>22BCCBB1- INTRODUCTION TO MANAGEMENT</b>
<b>COS</b>	Upon successful completion of this course the students would be able to
<b>CO1</b>	Examine and explain the management evolution and how it will affect future managers.
<b>CO2</b>	Enhance their managerial abilities and professional skills.
<b>CO3</b>	Develop and make the students to know the organization hierarchy; authority and responsibility relationships associated with the different levels of Management.
<b>CO4</b>	Understand the complexities associated with management of human resources in the organizations and integrate the learning in handling these complexities.
<b>CO5</b>	Apply the knowledge about management in the real life business situation.

	<b>22BCCBB2- FUNDAMENTALS OF ACCOUNTING</b>
<b>COS</b>	Upon successful completion of this course the students would be able to
<b>CO1</b>	Identify events that need to be recorded in the accounting records.
<b>CO2</b>	Describe the need for adjustments while preparing the financial statements;
<b>CO3</b>	To facilitate them to prepare final Accounts of business and non-trading concerns.
<b>CO4</b>	Recognize circumstances providing for increased exposure to errors and frauds.
<b>CO5</b>	Along with the methods of depreciation, the accounts to be prepared by non-trading concerns.

	<b>22FACBB1 – MANAGERIAL ECONOMICS</b>
<b>COS</b>	Upon successful completion of this course the students would be able to
<b>CO1</b>	Apply the objectives of business firms, demand analysis and elasticity of demand.
<b>CO2</b>	Identify the effective applications of factors of production.
<b>CO3</b>	Analyze the break-even point in their business.
<b>CO4</b>	Understand the determination of the Price, Market structure and competition.
<b>CO5</b>	Evaluate the performance of public sector in India.

## Second Semester

	<b>22BCCBB3- MARKETING MANAGEMENT</b>
<b>COS</b>	Upon successful completion of this course the students would be able to
<b>CO1</b>	Students gain knowledge about the basic concepts of marketing
<b>CO2</b>	Students develop skills to tackle the challenges and latest development in Marketing Management
<b>CO3</b>	Awareness of buyer's behavior becomes better among students
<b>CO4</b>	Students gain the Practical Knowledge to sell the goods.

	<b>22BCCBB4– BUSINESS MATHEMATICS AND STATISTICS</b>
<b>COS</b>	Upon successful completion of this course the students would be able to
<b>CO1</b>	Understand how differentiations are used as mathematical tools in Business.
<b>CO2</b>	Understand how matrices and determinants are used as mathematical tools in Business.
<b>CO3</b>	Able to use the appropriate statistical techniques in Business
<b>CO4</b>	Able to develop a strategic approach to organize and analyze the data
<b>CO5</b>	Analyze the management problems in research and decision making.

	<b>22BFACBB2 – BUSINESS ENVIRONMENT</b>
<b>COS</b>	Upon successful completion of this course the students would be able to
<b>CO1</b>	Develop an understanding on the gamut of the business activities.
<b>CO2</b>	To analyze various categories that constitute the business environment and apply various approaches that is helpful to manage both the internal and external environment of the business.
<b>CO3</b>	To apply the various types of policies in the economic environment, applying these policies change the structure of the economy and the transition there of from the past to the present scenario.
<b>CO4</b>	Comprehend the environmental factors that are conducive/detrimental to the respective businesses
<b>CO5</b>	Facilitating the learners understand, analyze and take decisions for a given international business environment.

### Third Semester

	<b>22BCCBB5 – MANAGERIAL COMMUNICATION</b>
<b>COS</b>	Upon successful completion of this course the students would be able to
<b>CO1</b>	The students will be aware of their communication skills and know their potential to become successful managers.
<b>CO2</b>	The students will get enabled with the mechanics of writing and can compose the business letters in English precisely and effectively.
<b>CO3</b>	Students will get exposure in drafting business proposals to meet the challenges of competitive environment
<b>CO4</b>	The students will be introduced to the managerial communication practices in business those are in vogue.
<b>CO5</b>	Students will get trained in the arts of Interpersonal communication and technological advancement and social media usage in communications, with emphasis on analyzing business situations.

	<b>22BCCBB6 – COMPUTER APPLICATIONS IN BUSINESS</b>
<b>COS</b>	Upon successful completion of this course the students would be able to
<b>CO1</b>	Students gain the knowledge of computers.
<b>CO2</b>	Students developed skills in MS Office.
<b>CO3</b>	They get acquainted skills in Tally for business functions.
<b>CO4</b>	Students known about the GST
<b>CO5</b>	Students gain the Practical knowledge in MS Office, Tally and GST applications

	<b>22BSACBB1 – BUSINESS LAW</b>
<b>COS</b>	Upon successful completion of this course the students would be able to
<b>CO1</b>	Learn the basics of laws governing commercial contracts and nuances of competency to contract, rules of consideration, free consent and object of contract with case laws and illustrations.
<b>CO2</b>	Have an insight on the provisions related to Sale of Goods Act 1930
<b>CO3</b>	Understand the consequences of applicability of various laws on business situations.
<b>CO4</b>	Know the rights and duties under various legal acts.
<b>CO5</b>	Develop critical thinking through the use of law cases.

### Fourth semester

	<b>22BCCBB7- ORGANIZATIONALBEHAVIOUR</b>
<b>COS</b>	Upon successful completion of this course the students would be able to
<b>CO1</b>	Have an insight on how employees behave and perform in the workplace.
<b>CO2</b>	Analyze the individual and group behavior and understand the implications of organizational Behavior on the process of management.
<b>CO3</b>	Understand their own behavior, attitude, ethical views and performance as well as those of the people with whom they behave.
<b>CO4</b>	Demonstrate how to make better decisions both as an individual and in a group.
<b>CO5</b>	Apply different motivational theories and methods to increase the productivity and job satisfaction of employees.

	<b>22BSACB2 - OPERATION RESEARCH</b>
<b>COS</b>	Upon successful completion of this course the students would be able to.
<b>CO1</b>	Formulate and obtain the optimal solution for linear programming problems.
<b>CO2</b>	Determine the optimal solution for Transportation problems.
<b>CO3</b>	Determine the optimal solution for Assignment problems.
<b>CO4</b>	Understand the need of inventory control and Management.
<b>CO5</b>	Decide an optimal replacement decision for given equipment.

## Fifth Semester

	<b>22BCCBB8 - COST ACCOUNTNG</b>
<b>COS</b>	Upon successful completion of this course the students would be able to.
<b>CO1</b>	Understanding the concept of cost accounting, Recognize the merits and demerits of cost concepts.
<b>CO2</b>	Describe the cost sheets for the purpose of stores control through economic order quantity, pricing and material issues.
<b>CO3</b>	Measure the cost in various types of costing followed by various organization.
<b>CO4</b>	Plan, design and execute practical activities using techniques and procedures appropriate to cost accounting.
<b>CO5</b>	Respond to change within the external and internal business environments and its effect on cost accounting.

	<b>22BCCBB9 - FINANCIAL MANAGEMENT</b>
<b>COS</b>	Upon successful completion of this course the students would be able to.
<b>CO1</b>	Demonstrate and understand the overall role and importance of Financial Functions.
<b>CO2</b>	Demonstrate Basic Financial Management Knowledge.
<b>CO3</b>	Communicates effectively using standard Business terminology.
<b>CO4</b>	Utilize information to maximize and manage finance.
<b>CO5</b>	Demonstrate a basic understanding of Budgeting.

	<b>22BCCBB10 – COMPANY LAW AND PRACTICE</b>
<b>COS</b>	Upon successful completion of this course the students would be able to.
<b>CO1</b>	Develop the knowledge about the procedure for formation of company.
<b>CO2</b>	Identify the role and responsibilities of shareholders in a company.
<b>CO3</b>	Understand the importance of meeting in a company.
<b>CO4</b>	Analyze the consequences of winding up.
<b>CO5</b>	Develop their reasoning abilities towards the business law.

	<b>22BCCBB11 – RESEARCH METHODS FOR BUSINESS</b>
<b>COS</b>	Upon successful completion of this course the students would be able to.
<b>CO1</b>	Solve the problem by following proper research work.
<b>CO2</b>	Prepare a research paper or any other type of research work.
<b>CO3</b>	Deliberately ignoring research errors in order to submit precise and reliable work.
<b>CO4</b>	Asses the validity and reliability of a study's overall findings
<b>CO5</b>	Create documentation through high-quality writing.

	<b>22BMBEBB1 – STRATEGIC MANAGEMENT</b>
<b>COS</b>	Upon successful completion of this course the students would be able to.
<b>CO1</b>	Establish and evaluate mission statement, long term objective , vision, and short term plan for the business;
<b>CO2</b>	Analyze the external and internal environment and identify opportunities, threats, strengths, and weaknesses of the firm and thereby formulate appropriate strategies for business;
<b>CO3</b>	Plan pre-implementation and implementation phase; and
<b>CO4</b>	Monitor and evaluate implemented strategies.
<b>CO5</b>	Students will be able to develop their capacity to think and execute strategically.

	<b>22BSBEBB1 – SERVICES MARKETING</b>
<b>COS</b>	Upon successful completion of this course the students would be able to.
<b>CO1</b>	Students gain knowledge about the basic concepts of Services marketing
<b>CO2</b>	Students develop skills to tackle the challenges in Marketing Mix
<b>CO3</b>	To know the strategy followed in the products
<b>CO4</b>	Students known about the promotion mix, pricing decision.
<b>CO5</b>	Students gain the Practical Knowledge about the market activities.

### Sixth Semester

	<b>22BCCBB12 – HUMAN RESOURCE MANAGEMENT</b>
<b>COS</b>	Upon successful completion of this course the students would be able to.
<b>CO1</b>	The Students are able to exhibit fundamental and basic knowledge of Human Resource Management to solve the practical problems in business in systematic manner.
<b>CO2</b>	The Students are able to identify and develop strategies for better practices for betterment of business in the ethical manner.
<b>CO3</b>	The Students are able to communicate effectively in the organization with confidence and contribute to exchange of ideas, skills and enhance learn ability within the organization.
<b>CO4</b>	The Students will exhibit healthy and self-sustainable leadership and entrepreneur qualities that encourages taking decisions on the basis of calculate risk and enhance the competitive advantage of the organization.
<b>CO5</b>	To gain knowledge HRM and its significance in business.

	<b>22BCCBB13 – MANAGEMENT ACCOUNTING</b>
<b>COS</b>	Upon successful completion of this course the students would be able to.
<b>CO1</b>	Measure the financial statements through comparative and common size by using various financial ratios.
<b>CO2</b>	Simplify the fund flow and cash flow statements by calculating funds and cash from operations.
<b>CO3</b>	Produce various budgets and apply standard costing for material variances; marginal costing for cost volume profit.
<b>CO4</b>	Provides a framework that translates the aims and objectives of the business into a series of key performance measures and targets.
<b>CO5</b>	How the business or the corporations will establish and manage the process and the various techniques and methods the business in a more efficient manner.



	<b>22BCCBB14 – ENTREPRENEURIAL DEVELOPMENT</b>
<b>COS</b>	Upon successful completion of this course the students would be able to.
<b>CO1</b>	Examine the problems and challenges of setting up a new business
<b>CO2</b>	Provide information on institutional supports, business opportunities and creating a new business plan.
<b>CO3</b>	Identify the key steps required to initiate and develop a business enterprise.
<b>CO4</b>	Discriminate the benefits of delivering the project identification and selecting the successful project with the various guidelines issued by the authorities
<b>CO5</b>	Motivate the students to become a successful entrepreneur.

	<b>22BMBEBB3</b>	<b>CUSTOMER</b>	<b>RELATIONSHIP</b>
	<b>MANAGEMENT</b>		
<b>COS</b>	Upon successful completion of this course the students would be able to.		
<b>CO1</b>	Be aware of the nuances of customer relationship.		
<b>CO2</b>	Analyze the CRM link with the other aspects of marketing.		
<b>CO3</b>	Impart the basic knowledge of the Role of CRM in increasing the sales of the company.		
<b>CO4</b>	Make the students aware of the different CRM models in service industry.		
<b>CO5</b>	Make the students aware and analyze the different issues in CRM.		

	<b>22BSBEBB2 – TOTAL QUALITY MANAGEMENT</b>
<b>COS</b>	Upon successful completion of this course the students would be able to.
<b>CO1</b>	The student would be able to apply the tools and techniques of quality management to manufacturing and services processes.
<b>CO2</b>	To realize the importance of significance of quality.
<b>CO3</b>	Manage quality improvement teams.
<b>CO4</b>	Identify requirements of quality improvement programs
<b>CO5</b>	The student manager will be able to explain the concept to Six Sigma its DMAIC process.

## DEPARTMENT OF COMMERCE

### First Semester

<b>22CCCCM1 Principles of Accountancy</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	The Concepts and Conventions of Financial Accounting.
<b>CO2</b>	Accounting for sole traders with adjustment entries and Rectification of Errors.
<b>CO3</b>	Calculation of Accounts of Non-profit organization and Bills of exchange.
<b>CO4</b>	Accounts of the Agency Business and temporary partnership.
<b>CO5</b>	Preparation o Accounts under Single Entry System. Calculation of Depreciation and Provisions and Reserves by using the various methods.

<b>22CCCCM2 Marketing</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Familiar with the basic concepts and functions of marketing
<b>CO2</b>	Effective understanding of buyer behavior and new product development
<b>CO3</b>	Communicate the pricing methods and services rendered the middle men
<b>CO4</b>	Demonstrate analytical skills in selling the product in the market
<b>CO5</b>	Develop knowledge in marketing research and recent trends in marketing

<b>22CFACCM1 Management concepts</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	To Understand the Evolution and theory of Management.
<b>CO2</b>	To develop the students to take decisions in various fields.
<b>CO3</b>	To get a knowledge about various organization structure and its responsibility.
<b>CO4</b>	To develop the flow of communication among the people.
<b>CO5</b>	To examine and practice the suitable leadership pattern in organization.

## Second Semester

<b>22CCCCM3 Business Accounting</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Students are familiarized with branch accounts and departmental accounts
<b>CO2</b>	Students can deal with hire purchase system and Installment purchase system
<b>CO3</b>	Become knowledgeable on self-balancing and sectional balancing ledgers and royalty account.
<b>CO4</b>	Trained to handle the Insolvency accounts and statement of affairs
<b>CO5</b>	Trained to calculate Fire insurance claims and accounting for sale or return.

<b>22CCCCM4 Business Tools For Decision Making</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Basics in statistics, Classification, Tabulation and Measure of central tendency
<b>CO2</b>	Measures of Dispersion and Skewness
<b>CO3</b>	Simple correlation and regression.
<b>CO4</b>	Time series and interpolation
<b>CO5</b>	Index numbers

<b>22CFACCM2 Business Economics</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	The Micro and Macro Economics relating to business.
<b>CO2</b>	Demand and concepts in relation to Law of Demand, Demand Curves and Elasticity of Demand.
<b>CO3</b>	Production function, scale of production and economics of large-scale production and limitations
<b>CO4</b>	Law of Supply, Optimum firm, pricing under Perfect and Monopolistic competition.
<b>CO5</b>	Income and Expenditure pattern of National Income.

### Third Semester

<b>22CCCCM5 Partnership Accounts</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Students are aware about partnership accounts and various Accounting Treatments.
<b>CO2</b>	Students can familiar with accounts for Admission of Partner, Partner's Capital Accounts and Balance Sheet.
<b>CO3</b>	Students become knowledgeable on calculation of Gaining ratio, Adjustments regarding partner's Capital Accountant the time of Retirement of a Partner
<b>CO4</b>	Students get trained to prepare the accounts for Dissolution of partnership firm, Realization of asset and Insolvency of a partner.
<b>CO5</b>	Trained to calculate the accounts for Amalgamation of firms and Conversion of sale of a partnership firm to a company

<b>22CCCCM6 Business Law</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Knowledge about the basics of Law and to know about the meaning of contract.
<b>CO2</b>	Knowledge about the Principle and Practices of law relating to contract.
<b>CO3</b>	Knowledge about the law relating to Bailment, Pledgement and Contract of Agency
<b>CO4</b>	Knowledge about the different aspects and the rules and regulations connected with Sale of Goods Act
<b>CO5</b>	Knowledge about the basic law pertaining to Negotiable Instruments, cyber-crime and the law relating to Information Technology.

<b>22CSACCM1 Business Communication</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Understands the basics of communication
<b>CO2</b>	Knowledge about different types of communication
<b>CO3</b>	Through knowledge on report writing
<b>CO4</b>	Knowledge on preparation of different official letters
<b>CO5</b>	Knowledge on corporate communication

## Fourth Semester

<b>22CCCCM7 Cost Accounting</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Learners are explained how accounts are maintained in cost a/c and how to record various costing transactions.
<b>CO2</b>	Learner go to insight as to where contract costing is applied, steps in contract costing, and profit is ascertained of complete & incomplete contract.
<b>CO3</b>	Learner understood of Process costing is applicable and to ascertain cost at each stage of process; valuation of abnormal gain & abnormal loss
<b>CO4</b>	Learner understood of meaning, application of Marginal costing towards Break even analysis, P/V ratio used in Managerial decision.
<b>CO5</b>	Learner got understanding of standard cost and its types, process, and types of variances through application used for Managerial decisions

<b>22CCCCM8 Banking Theory Law And Practices</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Elucidate the services rendered by banks
<b>CO2</b>	Have an understanding about various types of accounts and savings schemes
<b>CO3</b>	Generate information types of customers
<b>CO4</b>	Analyse information about the rights, responsibilities and duties of paying and collecting banker
<b>CO5</b>	Express opinions recent trends in Modern Banking

<b>22CSACCM2 COMPANY LAW AND SECRETARIAL PRACTICES</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Knowledge regarding the procedures to form a company.
<b>CO2</b>	Knowledge regarding how to prepare the documents of a company.
<b>CO3</b>	Knowledge how to raise their owned capital and borrowings
<b>CO4</b>	Knowledge about the types of company meetings.
<b>CO5</b>	Knowledge about the procedure for windup a company.

## Fifth Semester

<b>22CCCCM9 Corporate Accounting</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	To make learner to understand form at of company final accounts and various schedules of company final accounts.
<b>CO2</b>	To make learner to acquaint in formation of buy-back of shares and their legal formalities
<b>CO3</b>	To acquaint learner with various methods and techniques of amalgamation
<b>CO4</b>	To understand sources of Financial activities towards company
<b>CO5</b>	Develop among learners various skills of corporate techniques to be applied for minimization of cost and maximization of profit

<b>22CCCCM10 Computer Application in Business</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Basics of computer application in business and Creating and editing of word documents, opening, savings and closing documents and mail merge
<b>CO2</b>	Spreadsheet programmes and applications, creating and formatting different types of charts, and application of financial and statistical function
<b>CO3</b>	Architecture and customization of Tally, Editing and deleting ledgers, and Vouchers entry
<b>CO4</b>	Accounting of inventories, Budget and controls
<b>CO5</b>	Daybooks, Trialbalance, final account and Bank Reconciliation Statement

<b>22CCCCM11 Management Accounting</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Basic knowledge on Management Accounting.
<b>CO2</b>	Preparation of fund flow statement and cash flow Statement as per AS-3
<b>CO3</b>	Understand the Marginal costing and Variance analysis
<b>CO4</b>	Select better Design various types of Budget
<b>CO5</b>	Understand the Marginal costing and Variance analysis.

## Sixth Semester

<b>22CCCCM12 Financial Management</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Understand basic concept of Financial management.
<b>CO2</b>	Analyze the various cost of capital with respect of manage the funds.
<b>CO3</b>	Apply the Leverage in EBIT and EPS analysis
<b>CO4</b>	Compute the various models of Dividend Policy.
<b>CO5</b>	Understand the various concepts of Working capital Management and cash management

<b>22CCCCM13 Income Tax Law &amp; Practices</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Know about the procedures regarding basic rules and regulations and Residential status
<b>CO2</b>	Update the new taxes regarding Salaried employee
<b>CO3</b>	Get the latest information about deductions for house property
<b>CO4</b>	Make sure about the admissible, in admissible expenses and deductions
<b>CO5</b>	Allowable for business or professional incomes

<b>22CCCCM14 Financial Services</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	The meaning and types of financial services.
<b>CO2</b>	The features of hire purchase.
<b>CO3</b>	The functions of mutual funds.
<b>CO4</b>	Meaning and features of venture capital.
<b>CO5</b>	The significance and types of factoring

## DEPARTMENT OF COMMERCE

### (COMPUTER APPLICATION)

#### First Semester

<b>22CCCCA1 Principles of Accountancy</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	The Concepts and Conventions of Financial Accounting.
<b>CO2</b>	Accounting for sole traders with adjustment entries and Rectification of Errors
<b>CO3</b>	Calculation of Accounts of Non-profit organization and Bills of exchange.
<b>CO4</b>	Accounts of the Agency Business and temporary partnership
<b>CO5</b>	Preparation of Accounts under Single Entry System. Calculation of Depreciation and Provisions and Reserves by using the various methods

<b>22CCCCA2 Marketing</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Familiar with the basic concepts and functions of marketing
<b>CO2</b>	Effective understanding of buyer behaviour and new product development
<b>CO3</b>	Communicate the pricing methods and services rendered by the middlemen
<b>CO4</b>	Demonstrate analytical skills in selling the product in the market
<b>CO5</b>	Develop knowledge in marketing research and recent trends in marketing

<b>22CFACCA1 PC Package</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Basics of computer, Creating and Editing Word Documents and Saving, opening, closing and protecting documents; and Mail Merge.
<b>CO2</b>	Creating work sheet and Charts, formula applications, and PPT .
<b>CO3</b>	MS Access, Database, Relationship, Query, Forms, Reports and Macros
<b>CO4</b>	To understand Page maker and methods to use.
<b>CO5</b>	Photoshop, Images and Animation



## Second Semester

<b>22CCCCA3 Management Concepts</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	To Understand the Evolution and theory of Management
<b>CO2</b>	To develop the students to take decisions in various fields.
<b>CO3</b>	To get a knowledge about various organization structure and its responsibility
<b>CO4</b>	To develop the flow of communication among the people,
<b>CO5</b>	To examine and practice the suitable leadership pattern in organization.

<b>22CCCCA4 Business Tools For Decision Making</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Basics in statistics, Classification, Tabulation and Measure of central tendency
<b>CO2</b>	Measures of Dispersion and Skewness
<b>CO3</b>	Simple correlation and regression.
<b>CO4</b>	Time series and interpolation
<b>CO5</b>	Index numbers

<b>22CFACCA1P PC Package (Practical)</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Basics of computer, Creating and Editing Word Documents and Saving, opening, closing and protecting documents; and Mail Merge.
<b>CO2</b>	Creating work sheet and Charts, formula applications, and PPT .
<b>CO3</b>	MS Access, Database, Relationship, Query, Forms, Reports and Macros
<b>CO4</b>	To understand Page maker and methods to use.
<b>CO5</b>	Photoshop, Images and Animation

### Third Semester

<b>22CCCCA5 Financial Accounting</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Students are familiarized with branch accounts and departmental accounts
<b>CO2</b>	Become knowledgeable on self balancing and sectional balancing ledgers and royalty account.
<b>CO3</b>	Trained to handle the Insolvency accounts and statement of affairs
<b>CO4</b>	Students are aware about partnership accounts and various Accounting Treatments.
<b>CO5</b>	Students can familiar with accounts for Admission of Partner, Partner's Capital Accounts and Balance Sheet.

<b>22CCCCA6 Internet And Web Applications</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Working on internet, Bluetooth and WiFi.
<b>CO2</b>	Internet Service Provider, Internet Explorer, and Several Web pages
<b>CO3</b>	Applications of Internet, internet protocols, E-mail and voice mail
<b>CO4</b>	HTML, Web Browser and Lists
<b>CO5</b>	HTML Table and XML

<b>22CSACCA1 Business Law</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Knowledge about the basics of Law and to know about the meaning of contract.
<b>CO2</b>	Knowledge about the Principle and Practices of law relating to contract.
<b>CO3</b>	Knowledge about the law relating to Bailment, Pledgement and Contract of Agency
<b>CO4</b>	Knowledge about the different aspects and the rules and regulations connected with Sale of Goods Act
<b>CO5</b>	Knowledge about the basic law pertaining to Negotiable Instruments, cyber-crime and the law relating to Information Technology.

## Fourth Semester

<b>22CCCCA7 Cost Accounting</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Learners are explained how accounts are maintained in cost a/c and how to record various costing transactions.
<b>CO2</b>	Learner go to insight as to where contract costing is applied, steps in contract costing, and profit is ascertained of complete & incomplete contract.
<b>CO3</b>	Learner understood of Process costing is applicable and to ascertain cost at each stage of process; valuation of abnormal gain & abnormal loss
<b>CO4</b>	Learner understood of meaning, application of Marginal costing towards Break even analysis, P/V ratio used in Managerial decision.
<b>CO5</b>	Learner got understanding of standard cost and its types, process, and types of variances through application used for Managerial decisions

<b>22CCCCA1P Internet And Web Applications (Practical)</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Working on internet, Bluetooth and WiFi.
<b>CO2</b>	Internet Service Provider, Internet Explorer, and Several Web pages
<b>CO3</b>	Applications of Internet, internet protocols, E-mail and voice mail
<b>CO4</b>	HTML, Web Browser and Lists
<b>CO5</b>	HTML Table and XML

<b>22CSACCA2 Banking Theory Law And Practices</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Elucidate the services rendered by banks
<b>CO2</b>	Have an understanding about various types of accounts and savings schemes
<b>CO3</b>	Generate information types of customers
<b>CO4</b>	Analyse information about the rights, responsibilities and duties of paying and collecting banker
<b>CO5</b>	Express opinions recent trends in Modern Banking

## Fifth Semester

<b>22CCCCA8 Corporate Accounting</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	To make learner to understand form at of company final accounts and various schedules of company final accounts.
<b>CO2</b>	To make learner to acquaint in formation of buy-back of shares and their legal formalities
<b>CO3</b>	To acquaint learner with various methods and techniques of amalgamation
<b>CO4</b>	To understand sources of Financial activities towards company
<b>CO5</b>	Develop among learners various skills of corporate techniques to be applied for minimization of cost and maximization of profit

<b>22CCCCA9 Introduction To ORACLE AND SQL</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	File and database structure,
<b>CO2</b>	Relational Database, its terms, advantage and disadvantage
<b>CO3</b>	Different Keys, SQL and Commands
<b>CO4</b>	Basics of Oracle, SQL queries, Retrieving, Restricting and Sorting data.
<b>CO5</b>	Single and Group Function

<b>22CCCCA10 VISUAL PROGRAMMING</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Visual Basic and its workings
<b>CO2</b>	Variables and Select statements
<b>CO3</b>	Standard Controls, Frame Control and Image Control
<b>CO4</b>	File System and Built-in-Active X control tool bar
<b>CO5</b>	Database and Dot Net

<b>22CCCCA11 Management Accounting</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Basic knowledge on Management Accounting.
<b>CO2</b>	Preparation of fund flow statement and cash flow Statement as per AS–3
<b>CO3</b>	Understand the Marginal costing and Variance analysis
<b>CO4</b>	Select better Design various types of Budget
<b>CO5</b>	Understand the Marginal costing and Variance analysis.

## Sixth Semester

<b>22CCCCA12 Financial Services</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	The meaning and types of financial services.
<b>CO2</b>	The features of hire purchase.
<b>CO3</b>	The functions of mutual funds.
<b>CO4</b>	Meaning and features of venture capital.
<b>CO5</b>	The significance and types of factoring

<b>22CCCCA13 Income Tax Law &amp; Practices</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Know about the procedures regarding basic rules and regulations and Residential status
<b>CO2</b>	Update the new taxes regarding Salaried employee
<b>CO3</b>	Get the latest information about deductions for house property
<b>CO4</b>	Make sure about the admissible, in admissible expenses and deductions
<b>CO5</b>	Allowable for business or professional incomes

<b>22CCCCA2P SQL APPLICATIONS USING ORACLE (Practical)</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	File and database structure,
<b>CO2</b>	Relational Database, its terms, advantage and disadvantage
<b>CO3</b>	Different Keys, SQL and Commands
<b>CO4</b>	Basics of Oracle, SQL queries, Retrieving, Restricting and Sorting data.
<b>CO5</b>	Single and Group Function

<b>22CMBECA3 ENTREPRENEURSHIP DEVELOPMENT</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	To enhance a student to behave as a good businessman
<b>CO2</b>	To emancipate the society to be mingled with,
<b>CO3</b>	To obtain the next level of business value,
<b>CO4</b>	To improve the process of business,
<b>CO5</b>	To know the outset of proper financial plan for the development of business

## **M.Com Commerce**

### **First Semester**

<b>P22MCCC11 Managerial Economics</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Understand the methods of Managerial Economics & Theory of the firm.
<b>CO2</b>	Understand the concept & Analysis of Demand Forecasting.
<b>CO3</b>	Understand the concept & Analysis of Production function.
<b>CO4</b>	Describe various market forms and pricing Methods with their objectives.
<b>CO5</b>	Analyse the resource allocation in various economic levels for effective capacity utilization

<b>P22MCCC12 Service Marketing</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Students will strong conceptual knowledge in the area of services marketing
<b>CO2</b>	Student will acquaint knowledge in concept of services marketing in buyer behaviour and awareness.
<b>CO3</b>	Students will have analytical skills in marketing mix, product strategy and PLC.
<b>CO4</b>	Students will strong knowledge in banking marketing insurance marketing and transport marketing management.
<b>CO5</b>	The commerce graduate can understand the tourism and hotel management.

<b>P22MCCC13 Advanced Financial Management</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Formulate finance Decisions Considering Risk and Return.
<b>CO2</b>	Identify and discuss long term and short term sources of finance
<b>CO3</b>	Compute the cost of debt, Equity, Preference, retain earnings and overall cost of Capital.
<b>CO4</b>	Apply the concept of leverage in financial decision making.
<b>CO5</b>	Evaluate the concept of Working Capital Management.

<b>P22MCCC1A Corporate Law</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	The students will be able to understand how law is important in day-to-day life.
<b>CO2</b>	The students will be able develop the knowledge and skills in the understanding of the general legal framework, and of specific legal areas relating to business.
<b>CO3</b>	The students will get elementary knowledge about process of various legal transactions that occurs in the corporate world.
<b>CO4</b>	The students will be able to identify the process of SEBI Regulations and its transparency and disclosures.
<b>CO5</b>	The students will have wide knowledge about the Environment Protection Act and Consumer Protection Act.

<b>P22MCCC1B Total Quality Management</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Understand the concept of TQM.
<b>CO2</b>	Identify Quality Council and strategic quality planning.
<b>CO3</b>	Learn new management tools of quality management.
<b>CO4</b>	Update Knowledge in Quality Circle.
<b>CO5</b>	Know the benefits of ISO.

## Second Semester

<b>P22MCCC21 Research Methodology</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Learning the meaning of research, its types.
<b>CO2</b>	Developing research design and acquiring skills to formulate research problems.
<b>CO3</b>	Acquiring knowledge of sampling technique and formulating Hypotheses.
<b>CO4</b>	Upskilling Data construction, collecting techniques and testing their validity and reliability.
<b>CO5</b>	Developing skills in Processing and analysis of data, applying various statistical tools using software packages

<b>P22MCCC22 Quantitative Techniques of Business Decision</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	To make the students evaluate different quantitative techniques.
<b>CO2</b>	The students will be able to take opt decisions in business.
<b>CO3</b>	The students will have knowledge in statistic and quantitative techniques.
<b>CO4</b>	The students will be familiar with decision making skills.
<b>CO5</b>	The students will be able to design new skills in decision making

<b>P22MCCC23 Income Tax Law &amp; Practices</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Enabling students to file tax returns
<b>CO2</b>	Providing avenues for employment opportunities in tax filing
<b>CO3</b>	Grasping the basics and advanced concepts in tax planning in knowledge perspective

<b>P22MCCC2A Human Resource Management</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Understand the concept of HRM.
<b>CO2</b>	Identify the need for man power planning.
<b>CO3</b>	Know the procedures for recruitment and selection.
<b>CO4</b>	Gain Knowledge about various training programmes.
<b>CO5</b>	Enhance performance appraisal techniques.

<b>P22MCCC2B Marketing Management</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Apply the modern marketing concepts in the business scenario.
<b>CO2</b>	Develop appropriate marketing mix for various market segments.
<b>CO3</b>	Identify and develop the product required by the customers and fix competitive price.
<b>CO4</b>	Apply the distribution strategies and eliminate the place hindrance of the customers.
<b>CO5</b>	Identify the customer taste and preferences and adopt sales promotion techniques to compete in the market

### **Third Semester**

<b>P22MCCC31 Advanced Corporate Accounting</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	The students will be able Construct the financial statements of company within the frame work of Ind AS 2
<b>CO2</b>	The students will be able to devise a plan for reconstruct the capital structure in the financial statement of Joint stock company ltd.
<b>CO3</b>	The students will be able to determine how the companies are analysed at the time of Merger and Acquisition and its accounting procedures
<b>CO4</b>	The students will familiarize about the concepts and the legal requirements related to presentation of accounts by a holding company
<b>CO5</b>	The students will be able to justify the outstanding claims against the Company and satisfy those claims in the manner and order prescribed by law.



<b>P22MCCC32 Information Technology Concepts</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Know Evolution, Classification and Applications of Computers
<b>CO2</b>	Understand Computer peripherals
<b>CO3</b>	Have knowledge on Software, Programming Language, Word Processing and Spread SheetsPresentation
<b>CO4</b>	Do Data Communication and BDP
<b>CO5</b>	Aware Computerized Accounting

<b>P22MCCC3A Brand Management</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Branding challenges & opportunities.
<b>CO2</b>	Strategies for positioning the brand for competitive advantage
<b>CO3</b>	Managing Brand image
<b>CO4</b>	Implications for buying & selling brands.
<b>CO5</b>	Co-branding & Licensing Brands.

### **Fourth Semester**

<b>P22MCCC41 Strategic Management</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Acquire knowledge on basic concepts of strategy and levels of strategy.
<b>CO2</b>	Understand the strategic options and formulate realistic strategies to formulate vision mission and analyse a firm's internal strengths and weaknesses based on available resources and capabilities using various techniques.
<b>CO3</b>	Develop Knowledge on firm's external environment including competitive forces in the industry environment, forces in the macro environment, and competitors
<b>CO4</b>	Demonstrate the knowledge on the strategic approaches to manage a business successfully in a firm with a sustainable competitive advantage.
<b>CO5</b>	Evaluate the challenges faced by managers in implementing and evaluating strategies based on the nature of business and industry

<b>P22MCCC42 Advanced Cost And Management Accounting</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Understand the basis of conventional and contemporary costing systems
<b>CO2</b>	Determine the costs of products and services
<b>CO3</b>	Critically analyse relevant costs and provide recommendations for decision making
<b>CO4</b>	Prepare plans and budgets and analyse variances from standard cost to pinpoint areas that need control

<b>P22MCIBC ENTREPRENEURSHIP DEVELOPMENT</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	To offer the students to understand the basic knowledge of entrepreneurship.
<b>CO2</b>	To understand the EDP practices and preparation of project report.
<b>CO3</b>	To familiarise in project market information, sources and financial problems.
<b>CO4</b>	To explain the finance to trade.
<b>CO5</b>	To describe the importance various organizations involved in entrepreneurial growth.

## DEPARTMENT OF MATHEMATICS

### First Semester

<b>22SCCMM1- DIFFERENTIAL CALCULUS AND TRIGONOMETRY</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Explain the relationship between the derivative of a function as a function and the notion of the derivative as the slope of the tangent line to a function at a point.
<b>CO2</b>	Compare and contrast the ideas of continuity and differentiability.
<b>CO3</b>	Find maxima, minima, critical points and inflection points of functions and to determine the concavity of curves.
<b>CO4</b>	Convert angles from degrees to radians and vice versa
<b>CO5</b>	Compute the length of a circular arc given the radius and the interior angle.
<b>CO6</b>	Understand the definitions of the inverse trigonometric functions, compute the domain and range of the hyperbolic and inverse trigonometric functions

<b>22SCCMM2- INTEGRAL CALCULUS AND FOURIER SERIES</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to
<b>CO1</b>	Derive reduction formula and thereby evaluate some standard integrals.
<b>CO2</b>	Explain the properties of Beta and Gamma functions and apply it to compute the integral.
<b>CO3</b>	Identify odd and even functions and determine Fourier series expansion of these given functions.
<b>CO4</b>	Utilize double and triple integral to compute area and volume of a solid.
<b>CO5</b>	Apply change of variable method to evaluate double integral

<b>22SCACPH1- ALLIED PHYSICS</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to
<b>CO1</b>	Apply the concepts of elasticity, viscosity and surface tension to solve problems encountered in everyday life...
<b>CO2</b>	Understand the centre of gravity, states of equilibrium of rigid bodies and also stability of floating bodies.
<b>CO3</b>	Understand the laws of thermodynamics, thermal conductivity and black body radiation
<b>CO4</b>	Understand the theories and experiments on interference and diffraction using air wedge, Newton's ring and grating
<b>CO5</b>	Know the formation, characteristics and applications of diodes and transistor.

## Second Semester

<b>22SCCMM3- DIFFERENTIAL EQUATIONS</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to
<b>CO1</b>	Solve first-order ordinary differential equations.
<b>CO2</b>	Solve higher order differential equations.
<b>CO3</b>	Solve the Higher order differential equations using methods of variation of parameter.
<b>CO4</b>	Solve partial differential equations using Lagrange's Method
<b>CO5</b>	Solve Laplace and Inverse laplace transforms

<b>22SCCMM4-ANALYTICAL GEOMETRY 3D</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Gain knowledge about the regular geometrical figures and their properties.
<b>CO2</b>	Analyze condition of tangency and find the tangent plane to the sphere
<b>CO3</b>	Examine the condition or the general equation of the cone.
<b>CO4</b>	Understand the concept of quadric cone and its properties.
<b>CO5</b>	Acquire the basic knowledge of tangents and conicoid

<b>22SCACPH2- ALLIED PHYSICS</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to
<b>CO1</b>	Understand Coulomb's law, Gauss theorem and gain a brief knowledge of capacitors.
<b>CO2</b>	Understand the properties, types of magnetic materials and hysteresis of ferromagnetic material
<b>CO3</b>	Acquire the knowledge of atom models and X rays
<b>CO4</b>	Know the basics of nucleus and their properties, nuclear reaction, nuclear models and elementary particles.
<b>CO5</b>	Learn the binary number system, binary arithmetic operations, logic gates and De-Morgan's Theorem

<b>22SCACPH1P - ALLIED PHYSICS PRACTICAL</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to
<b>CO1</b>	Understand the Laboratory techniques
<b>CO2</b>	Evaluate a process based on the results obtained from the experiments quantitatively and qualitatively
<b>CO3</b>	Extend the scope of investigation as expected.
<b>CO4</b>	Communicate a process with help of the outcomes of an experiment
<b>CO5</b>	Develop the skill of conducting an experiment collaboratively and ethic

### Third Semester

<b>22SCCMM5-CLASSICAL ALGEBRA AND THEORY OF NUMBERS</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Know the foundation of Theory of Equations.
<b>CO2</b>	Applying the skills to solve problems in operative algebra
<b>CO3</b>	To know the fundamental concepts of algebra
<b>CO4</b>	To apply the concepts of arithmetic functions
<b>CO5</b>	To Evaluate the problems of series

<b>22SCCMM6 - SEQUENCES AND SERIES</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Determine if an infinite sequence is bounded
<b>CO2</b>	Determine if an infinite sequence is monotonic.
<b>CO3</b>	Determine if an infinite sequence is convergent or divergent.
<b>CO4</b>	Find the sequence of partial sums of an infinite series.
<b>CO5</b>	Determine if a geometric series is convergent or divergent.
<b>CO6</b>	Determine if an infinite sequence is convergent or divergent.
<b>CO7</b>	Find the sum of a convergent geometric series.
<b>CO8</b>	Determine if an infinite series is convergent or divergent by selecting the appropriate test.
<b>CO9</b>	Determine if an infinite series converges absolutely or conditionally

<b>22SCACMS1 - MATHEMATICAL STATISTIC</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Understand random variables and probability distributions
<b>CO2</b>	Know the difference between continuous and random variables
<b>CO3</b>	Acquire the knowledge by using Binomial and Poisson distribution
<b>CO4</b>	To understand the distribution functionbs

## Fourth Semester

<b>22SCCMM7-VECTOR CALCULUS AND LAPLACE TRANSFORMS</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Learn the basic knowledge of vector differentiation and vector integration
<b>CO2</b>	Solve vector differentiation and integration problems.
<b>CO3</b>	Introduce the basic concepts of Laplace Transforms.
<b>CO4</b>	Solve a differential equation by using Laplace Transforms

<b>22SCCMM8-ABSTRACT ALGEBRA</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Demonstrate the abstract structures of algebra
<b>CO2</b>	Prove standard theorems of groups and rings
<b>CO3</b>	Check irreducibility of polynomial and verify whether a function is an isomorphism or not
<b>CO4</b>	Determine cosets, automorphism, kernel, maximal and prime ideals
<b>CO5</b>	Develop examples of groups and rings with specific criteria.
<b>CO6</b>	Students will be able to determine whether a given group is abelian by checking the properties.
<b>CO7</b>	Prove that a given subset of a group is a subgroup by applying the properties.
<b>CO8</b>	Describe all elements in a cyclic subgroup by using generators.

<b>22SCACMS2- MATHEMATICAL STATISTICS</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Understand the meaning of correlation ,regression and its properties
<b>CO2</b>	Apply the concepts of t, F, z distribution and its applications
<b>CO3</b>	Apply the concepts of sampling techniques and procedure of testing of hypothesis for large samples
<b>CO4</b>	Understand the concepts of distributions
<b>Co5</b>	Applications of sampling distributions

<b>ALLIED PRACTICAL 22SACAMS1P-MATHEMATICAL STATISTICS</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Understand and critically discuss the issues surrounding sampling and significance
<b>CO2</b>	Check the given data are correlated or not using Karl Pearson's coefficient of correlation or rank correlation
<b>CO3</b>	Apply the concepts of sampling techniques and procedure of testing of hypothesis for large samples
<b>CO4</b>	Applications of normal fit into binomial form
<b>CO5</b>	Applications of mean ,median,mode

### **Fifth Semester**

<b>22SCCMM9 - NUMERICAL METHODS WITH MATLAB PROGRAMMING</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Apply the MATLAB programming to solve numerical problems.
<b>CO2</b>	Understanding the exciting world of programming through MATLAB.
<b>CO3</b>	To know the techniques of Numerical Methods.
<b>CO4</b>	To know the concepts of curve fitting in MATLAB programming
<b>CO5</b>	To evaluate Numerical integration problems through MATLAB programming

<b>22SCCMM10 - REAL ANALYSIS</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Explain the concepts such as real valued functions ,continuity etc.
<b>CO2</b>	Prove standard theorems in real analysis
<b>CO3</b>	Distinguish between upper bound and lower bound; continuity and uniform continuity of a function; limit point and interior point; and bounded and totally bounded
<b>CO4</b>	Generate sets and functions of required nature.
<b>CO5</b>	To know about different kinds of continuity and discontinuity

<b>22SCCMM11 - STATICS</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to
<b>CO1</b>	The course deals the study of internal and external forces in a structure.
<b>CO2</b>	Provide the basic knowledge of Equilibrium of a particle.
<b>CO3</b>	It deals about the rest of the body
<b>CO4</b>	To know about Equilibrium of two couples
<b>CO5</b>	To know about coplanar of two couples

<b>22SCCM1P - NUMERICAL METHODS WITH MATLAB PROGRAMMING PRACTICAL</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	To Experience the programming skills through numerical methods.
<b>CO2</b>	Know basic commands in MATLAB programming.
<b>CO3</b>	Solve numerical problems using MATLAB programming.
<b>CO4</b>	To solve Numerical integration problems through MATLAB programming
<b>CO5</b>	To solve Regression problems through MATLAB programming

<b>22SMBEMM1A - OPERATIONS RESEARCH</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Demonstrate the basic concepts of LPP ,game theory, queuing models, networks
<b>CO2</b>	Make use of different methods to get to optimality in LPP, TP, AP and games
<b>CO3</b>	Check the existence of alternate/infeasible/unbounded solutions
<b>CO4</b>	Evaluate the solution of primal using duality optimal solution by characteristics of queuing system
<b>CO5</b>	Convert possible real life problems into OR model

<b>22SSBEMM1 - INTRODUCTION TO LATEX</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Type their own mathematical article/notes/book/journal paper/project work.
<b>CO2</b>	Meticulously prepare their own mathematical notes.
<b>CO3</b>	Understand basic structure of Latex 2e and conversions of them to various formats.
<b>CO4</b>	Typeset and compile documents with titles, sectioning and enumeration etc.
<b>CO5</b>	Understand how to align math equations, matrices etc.
<b>CO6</b>	Include the figures in various formats into their latex document and compile it successfully.
<b>CO7</b>	Utilize bites feature of including bibliographies and indexes

## Sixth Semester

<b>22SCCMM12- LINEAR ALGEBRA</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Define basic concepts of vector spaces, linear transformations, inner product spaces.
<b>CO2</b>	Prove standard theorems in Linear Algebra
<b>CO3</b>	Distinguish linear independence and dependence; singular and nonsingular linear transformations; quadratic and diagonal forms.
<b>CO4</b>	Determine basis and dimension of vector space, orthogonal basis, eigen values, eigen vector and posets.

<b>22SCCMM13 - COMPLEX ANALYSIS</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Becoming familiar with the concepts Complex numbers and their properties and operations with Complex number.
<b>CO2</b>	Finding domain and range of complex functions and sketching their graphs
<b>CO3</b>	Evaluating limits and checking the continuity of complex function.
<b>CO4</b>	Checking differentiability and Analyticity of functions.
<b>CO5</b>	Evaluate Complex integrals and applying Cauchy integral

<b>22SCCMM14 - DYNAMICS</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Acquire knowledge about the basic concepts of kinematics.
<b>CO2</b>	Analyze the motion of Projectiles and their results.
<b>CO3</b>	Critique the concepts of Central Orbits, differential equation of a central orbit.
<b>CO4</b>	Understand the fundamental concepts of velocity and acceleration.
<b>CO5</b>	Understand the work done in stretching an elastic string Simple Harmonic motion.

<b>22SMBEMM2A- GRAPH THEORY</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	To understand and apply the fundamental concepts in graph theory.
<b>CO2</b>	To apply graph theory based tools in solving practical problems
<b>CO3</b>	To understand the trees
<b>CO4</b>	The students will be able to know the planarity.
<b>CO5</b>	To explain the Kruskal's algorithm and Dijkstra's algorithm



<b>22SMBEMM3B- NUMBER THEORY</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Understand the concepts of divisibility and fundamental theorem of arithmetic.
<b>CO2</b>	The students will know about the Fermat's theorem and Wilson theorem.
<b>CO3</b>	Understand the congruences
<b>CO4</b>	Solve using Chinese remainder Theorem
<b>CO5</b>	Understand the Mobius inversion formula.

<b>22SSBEMM2-MATHEMATICS FOR COMPETATIVE EXAMINATIONS</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Face competitive examinations with confidence.
<b>CO2</b>	Solve a lot of problems on numbers and averages and problems on ages.
<b>CO3</b>	Get a lot of training on percentage, profit and loss.
<b>CO4</b>	Crack problems on calculating simple interest and compound Interest.
<b>CO5</b>	Work on a plenty of problems on time and work.
<b>CO6</b>	Get working knowledge on ratios and proportions.
<b>CO7</b>	Calculate time, distance, speed given the other two and solve lot of problems.
<b>CO8</b>	Acquire problem solving ideas on trains, boats and streams

## M.Sc MATHEMATICS

### First Semester

<b>P22MACC11 - ALGEBRA</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Gain expert is in the basic concepts of group theory with the help of numerous examples.
<b>CO2</b>	Discuss in detail about permutation groups and Normal subgroups and discuss on counting tricks in algebra.
<b>CO3</b>	Bring out the key steps involved improving Sylow theorems and use Sylow's theorems to classify groups off in it order upto 120
<b>CO4</b>	Learn the fundamental concept in field theory of field extensions and would see the idea of generating new fields.
<b>CO5</b>	Have clear cut idea in the notions of Galois groups, normal extensions and separable extensions and illustrate them with various examples
<b>CO6</b>	Able to understand the Fundamental theorem of Galois theory.

<b>P22MACC12 – REAL ANALYSIS</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to
<b>CO1</b>	Describe fundamental properties of the real numbers that lead to the formal development of real analysis.
<b>CO2</b>	Demonstrate an understanding of limits and how that are used in sequences.
<b>CO3</b>	Demonstrate an understanding of limits and how that are used in series
<b>CO4</b>	Demonstrate an understanding of limits and how that are used in sequences examine and recognize the continuity of real functions
<b>CO5</b>	Demonstrate an intuitive and computational understanding of set theory, Continuity and solving application problems. This will be assessed through Homework, class quizzes and tests, and a final exam.

<b>P22MACC13-ORDINARY DIFFERENTIAL EQUATIONS</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to
<b>CO1</b>	Describe fundamental properties of the real numbers that lead to the formal development of real analysis.
<b>CO2</b>	Demonstrate an understanding of limits and how that are used in sequences.
<b>CO3</b>	Demonstrate an understanding of limits and how that are used in series
<b>CO4</b>	Demonstrate an understanding of limits and how that are used in sequences examine
<b>CO5</b>	Demonstrate an intuitive and computational understanding of set theory, Continuity and solving application problems. This will be assessed through homework, class quizzes and tests, and a final exam.
<b>CO6</b>	Understand the utility of the concepts from linear algebra and analysis in the study of first order equations
<b>CO7</b>	Discuss the Qualitative properties of solutions of first and second order equations. Also they will be able to work on numerous problems using comparison theorem in Sturm Liouville problems.
<b>CO8</b>	Understand the importance of studying well-posedness of the problem namely existence, uniqueness and continuous dependence of first order differential equations through Picard's theorem.

<b>P22MACC1A-CLASSICAL DYNAMICS</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Understand the important definitions and introductory concepts like the ideas of virtual work and d'Alembert's principle.
<b>CO2</b>	Derive Lagrange's equations of motion using d'Alembert's principle.
<b>CO3</b>	Understand the nature of equations of motion for holonomic and nonholonomic systems.
<b>CO4</b>	Understand the idea of impulsive constraints
<b>CO5</b>	Compare dissipative systems and velocity dependent potentials.
<b>CO6</b>	Understand the Hamiltonian view point of dynamics in canonical equations of motion and phase space.
<b>CO7</b>	Understand the concepts of Hamilton - Jacobi theory
<b>CO8</b>	Obtain some concrete procedure for solving problems using the theory of canonical transformations

<b>P22MAE1A-GRAPH THEORY</b>	
<b>COS</b>	Understand and work on the fundamental concepts of graphs.
<b>CO1</b>	Apply graph theory based tools in solving practical problems.
<b>CO2</b>	Understand basic concepts in Trees and discuss matching problems and its applications elsewhere
<b>CO3</b>	Comprehend and work on the concepts of planarity and discuss the dual of a plane graph also coloring problems.
<b>CO4</b>	It is very useful for root mapping problems

## Second Semester

<b>P22MACC21 -COMPLEX ANALYSIS</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Understand the complex number system from geometric view point. Will gain mastery in arguments on $C^*$ and logarithms
<b>CO2</b>	Get expertise in the concept of convergence of sequences and series of complex numbers, continuity and differentiability of function on complex numbers. Also the students will be able to thoroughly understand and know the importance of power series in complex analysis.
<b>CO3</b>	Workout the path integrals on the complex plane.
<b>CO4</b>	Understand the central theme of Cauchy theory, viz., existence of local primitives and local power series expansion.
<b>CO5</b>	Get acquainted with various techniques of proving fundamental theorem of algebra, open mapping theorem, maximum modulus theorem and Liouville's theorem.
<b>CO6</b>	Classify singularities, compute poles and residues and understand the Laurent series expansion.
<b>CO7</b>	Appreciate and work on the topology of extended complex plane.

<b>P22MACC22- LINEAR ALGEBRA</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Realise that the subject evolves as a generalization of solving a system of linear equations.
<b>CO2</b>	Capture the idea of producing lot of structure preserving maps (Linear transformations). Further the study of algebras of linear maps would be
<b>CO3</b>	Having got trained in numerous examples the student realizes the isomorphic theory of linear transformations and matrices.
<b>CO4</b>	Learn the theory of determinants and put them in practice.

<b>CO5</b>	Discuss in detail the basic concepts of Linear dependence, basis and dimension of a vector space. The students will be able to demonstrate how the geometric ideas turn into rigorous proofs.
<b>CO6</b>	Master the dimension formula and rank and nullity theorem which are often exploited.
<b>CO7</b>	Understand that the central theme of structure theory of linear maps is to decompose the given vector space as a direct sum of generalized the Eigen spaces using the given map on it.
<b>CO8</b>	Understand that linear Algebra plays a fundamental role in many areas of mathematics including Algebra, Geometry, Functional analysis and which finds widest application in Physics, Chemistry and elsewhere.

#### **P22MACC2A- PARTIAL DIFFERENTIAL EQUATIONS**

<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Classify first order partial differential equations and their solutions.
<b>CO2</b>	Solve first order equations and nonlinear partial differential equations using various methods
<b>CO3</b>	Use the method of characteristics to solve first order partial differential equations.
<b>CO4</b>	Identify and solve the three main classes of second order equations, elliptic, parabolic and hyperbolic
<b>CO5</b>	Solve one dimensional wave equations using method of separation of variables
<b>CO6</b>	Classify the boundary value problems and analyses its solutions.
<b>CO7</b>	Solve Heat conduction problem using Fourier series and cosines.
<b>CO8</b>	Illustrate the use of PDE in problems from Engineering and Biological Sciences

#### **P22MAE2C-STOCHASTIC PROCESSES**

<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Acquire adequate knowledge about Continuous Time Markov chain and queuing system.
<b>CO2</b>	Gain understanding on the Renewal process, Cumulative process and Semi Markov process -
<b>CO3</b>	Apply different methods to solve birth and death queues
<b>CO4</b>	Examine the computations of renewal process and theory
<b>CO5</b>	Conclude the idea of Stochastic processes in Queuing.

<b>P22CSNME1-FUNDAMENTALS OF INFORMATION TECHNOLOGY</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	To know the latest trends in information technology.
<b>CO2</b>	To understand the fundamentals of computers.
<b>CO3</b>	To gain knowledge about networks.
<b>CO4</b>	To acquire knowledge about different software.
<b>CO5</b>	To understand Internet basics.

<b>P22MAVACIA - INTRODUCTION TO LATEX</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Type their own mathematical article/notes/book/journal paper/project work.
<b>CO2</b>	Meticulously prepare their own mathematical notes.
<b>CO3</b>	Understand basic structure of Latex 2e and conversions of them to various formats.
<b>CO4</b>	Typeset and compile documents with titles, sectioning and enumeration etc.
<b>CO5</b>	Use various style files and in particular amsmath, amsthm, amssymb.
<b>CO6</b>	Understand how to align math equations, matrices etc.
<b>CO7</b>	Include the figures in various formats into their latex document and compile it successfully.

### Third Semester

<b>P22MACC31 - TOPOLOGY</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Study and Understand the concepts of metric spaces, topological spaces
<b>CO2</b>	Understand the concepts of open bases and open sub bases
<b>CO3</b>	Understand the concepts of Compactness, connectedness and separation axioms
<b>CO4</b>	Provide The countability Axioms - The separation Axioms.

<b>P22MACC32-MEASURE THEORY AND INTEGRATION</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Learn the basic concepts of measure and integration.
<b>CO2</b>	Comprehend the differences between different types of convergences.
<b>CO3</b>	Understand the concepts of Classical Banach Spaces
<b>CO4</b>	Learn completeness and approximation in $L_p$ - spaces.
<b>CO5</b>	An overview of the central results of the theory of Lebesgue integration

<b>P22MACC3A - ADVANCED NUMERICAL ANALYSIS</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Solve algebraic and transcendental equations using various iterative methods and study the rate of convergence of those problems.
<b>CO2</b>	Solve System of Linear Algebraic equations using direct methods and indirect methods.
<b>CO3</b>	Solve eigen value problems and study the error analysis.
<b>CO4</b>	Solve algebraic equations and differential equations using the techniques of interpolation like Lagrange Interpolation, Hermite Interpolation etc.
<b>CO5</b>	Perform curve fitting using least square approximation.
<b>CO6</b>	Find the numerical value of the derivative of various functions using Euler method and Runge-Kutta method.
<b>CO7</b>	Calculate the numerical value of a definite integral using methods like quadrature rules in numerical integration.
<b>CO8</b>	Identify the suitable numerical method and perform error analysis.

<b>P22MAE3A - INTEGRAL EQUATIONS AND CALCULUS OF VARIATIONS</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Understand the concepts of variation and its properties.
<b>CO2</b>	Use Euler's equation to solve various types of variational problems with fixed boundaries.
<b>CO3</b>	Modify the Euler's formula for a class of curves with moving boundary points.
<b>CO4</b>	Solve problems related with reflection and refraction, diffraction of light rays.
<b>CO5</b>	Derive sufficient conditions based on second variation.
<b>CO6</b>	Classify Fredholm, Volterra and singular type integral equations.
<b>CO7</b>	Solve integral equations using Fredholm theorem, Fredholm Alternative theorem and method of successive approximations.
<b>CO8</b>	Understand the classical Fredholm theory.

<b>P22MAVAC2A- MATHEMATICS FOR COMPETITIVE EXAMINATIONS</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Face competitive examinations with confidence.
<b>CO2</b>	Solve a lot of problems on numbers and averages and problems on ages.
<b>CO3</b>	Get a lot of training on percentage, profit and loss.
<b>CO4</b>	Crack problems on calculating simple interest and compound Interest.
<b>CO5</b>	Work on a plenty of problems on time and work.
<b>CO6</b>	Get working knowledge on ratios and proportions.
<b>CO7</b>	Calculate time, distance, speed given the other two and solve lot of problems.
<b>CO8</b>	Acquire problem solving ideas on trains, boats and streams.

<b>P22CSNME2 – FUNDAMENTALS OF TO INTERNET</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to
<b>CO1</b>	To know the latest trends in Internet.
<b>CO2</b>	To understand the Internet Technology.
<b>CO3</b>	To gain knowledge about networks.
<b>CO4</b>	To acquire knowledge about different software.
<b>CO5</b>	To understand Internet basics.

### Fourth Semester

<b>P22MACC41-FUNCTIONAL ANALYSIS</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Identify Banach spaces and analyse their properties with other types of spaces.
<b>CO2</b>	Examine and identify properties of complex Banach spaces- Hilbert spaces.
<b>CO3</b>	Apply the analytical techniques and theoretical knowledge in Hilbert Spaces. Find out and determine orthonormal sets.
<b>CO4</b>	Explain various properties of Hilbert spaces.
<b>CO5</b>	Attain knowledge and experience of working with many pure mathematical problems.



<b>P22MACC42 - DIFFERENTIAL GEOMETRY</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Have a solid understanding of the subjects, linear algebra, multivariable calculus and differential equations and a basic knowledge of theoretical physics.
<b>CO2</b>	Sketch and workout graphs, level sets, tangent space and surfaces of given smooth maps.
<b>CO3</b>	Good knowledge on calculus of vector fields.
<b>CO4</b>	Understand how Gauss map helps to identify the surfaces that are mapped onto the unit n-sphere.
<b>CO5</b>	Describe surfaces as a solution sets of differential equations.
<b>CO6</b>	Compute the Gaussian curvature of various surfaces

<b>P22MACC43 - FLUID DYNAMICS</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Understand the basic ideas of fluid velocity, streamlines and rotational and irrotational flows.
<b>CO2</b>	Understand the meanings of fundamental terms like pressure and body force.
<b>CO3</b>	Develop special mathematical methods involving images and complex variables for incompressible fluids.
<b>CO4</b>	Derive images in three dimensions.
<b>CO5</b>	Solve problems using Milne-Thomson circle theorem.
<b>CO6</b>	Understand Navier's Stokes of motion
<b>CO7</b>	Unify many developed principles.
<b>CO8</b>	Solve problems related with cosmic electrodynamics and nuclear engineering.

<b>P22MAE4C - ALGEBRAIC TOPOLOGY</b>	
<b>COS</b>	Upon successful completion of this course the students would be able to:
<b>CO1</b>	Review the basic topological concepts connecting geometry.
<b>CO2</b>	Understand quotient topology and how the identification works.
<b>CO3</b>	Discuss on the concept of homotopy and homotopy equivalence of topological spaces.
<b>CO4</b>	Compute the fundamental groups of standard topological spaces.
<b>CO5</b>	Learn thoroughly covering homotopy theorem.
<b>CO6</b>	Appreciate and deduce the important Brouwer's fixed point theorem.

## DEPARTMENT OF PHYSICS

### First Semester

<b>22SCCPH1 - PROPERTIES OF MATTER AND ACOUSTICS</b>	
COs	On successful completion of the course, the student will be able to
CO1	Differentiate the moduli of elasticity of different materials
CO2	Analyse the moduli of elasticity of materials made in the form of beams.
CO3	Understand the practical applications of surface tension in real life.
CO4	Acquire the knowledge of the flow of liquids based on their viscous nature and the variation of viscosity with temperature and pressure
CO5	Understand the various characteristics of sound and their practical implications.

<b>22SCCPH1P - PROPERTIES OF MATTER</b>	
COs	Upon completion of this course, the student would be able to
CO1	Use the measuring instruments for accurate measurement of physical quantities required for the experiment
CO2	Know the elastic properties of structural material from the experimental results
CO3	Realize practically the properties of liquids such as surface tension and viscosity
CO4	Acquire the experimental skill of verifying laws in Physics.
CO5	Understand experimentally the vibrations of stretched strings.

<b>22SCACMM1A - CALCULUS AND FOURIER SERIES</b>	
COs	After completing this course, the students will be able to
CO1	Explain the relationship between the derivative of a function as a function and the notion of the derivative as the slope of the tangent line to a function at a point.
CO2	Derive standard integration formulae and thereby evaluate some standard integrals.
CO3	Identify odd and even functions. Use that to determine Fourier series expansion of the given functions.
CO4	Apply change of variable method to evaluate double integral.
CO5	Explain the relationship between the derivative of a function as a function and the notion of the derivative as the slope of the tangent line to a function at a point.

<b>22SCACMM1B - ALGEBRA, ANALYTICAL GEOMETRY (3D) AND TRIGONOMETRY</b>	
COs	After completing this course, the students will be able to
CO1	Applying the skills to solve problems in operative algebra.
CO2	Gain knowledge about the regular geometrical figures and their properties.
CO3	To Understand the definitions of the inverse trigonometric functions and to Compute the domain and range of the hyperbolic and inverse trigonometric functions and to find exact values of composite functions with inverse trigonometric functions

## Second Semester

<b>22SCCPH2 - MECHANICS AND THEORY OF RELATIVITY</b>	
COs	Upon completion of this course, the students would be able to
CO1	Use the principles of projectiles to explain the manner in which gravity affects a projectile motion.
CO2	Gain a deeper knowledge of mechanics and its fundamental concepts.
CO3	Acquire the knowledge of gravitational force between objects and the centre of mass of objects.
CO4	Learn rigid body dynamics in terms of moment of inertia and also analyze the center of gravity of different bodies.
CO5	Analyse the special theory of relativity and its applications.

<b>22SCCPH2P - GENERAL PHYSICS I</b>	
COs	Upon completion of this course, the students would be able to
CO1	Know the techniques of handling laboratory instruments.
CO2	Evaluate a process based on the results obtained from the experiments quantitatively and qualitatively.
CO3	Use the results of an experiment to describe a phenomenon.
CO4	Develop the capacity of experiment collaboratively and ethically.
CO5	Acquire the skill of analysing the properties of materials.

<b>22SCACMM1B - ALGEBRA, ANALYTICAL GEOMETRY (3D) AND TRIGONOMETRY</b>	
COs	After completing this course, the students will be able to
CO1	Applying the skills to solve problems in operative algebra.
CO2	Gain knowledge about the regular geometrical figures and their properties.
CO3	To Understand the definitions of the inverse trigonometric functions and to Compute the domain and range of the hyperbolic and inverse trigonometric functions and to find exact values of composite functions with inverse trigonometric functions

<b>22SCACMM1C - ODE, PDE, LAPLACE TRANSFORMS AND VECTOR ANALYSIS</b>	
COs	After completing this course, the students will be able to
CO1	Solve differential equations using appropriate methods and to present mathematical solutions in a concise and informative manner.
CO2	Develop a logical understanding of the subject with mathematical skills so that students are able to apply mathematical methods & principles in solving problems in engineering fields.
CO3	Calculate Laplace transforms and inverses.
CO4	Apply Laplace transform to solution of differential and integral equations
CO5	Explain the physical significance of vector calculus, parameterize curves and calculate line integrals,
CO6	Use vector operators, calculate double and triple integrals and surface integrals, apply the Green's, Stokes and Divergence theorems and calculate complex integrals

### Third Semester

<b>22SCCPH3 - THERMAL PHYSICS</b>	
COs	Upon completion of this course ,the students would be able to
CO 1	Recall the different specific heat capacities of matters.
CO 2	Understand the Maxwell's thermodynamic relations to relate the fundamental and derived quantities.
CO 3	Apply the knowledge of conduction of heat in practical applications.
CO 4	Use Stefan's constant to evaluate temperature of sun at a particular place.
CO 5	Analyze the different principles used in liquefaction of gases

<b>22SCCPH3P - GENERAL PHYSICS II</b>	
COs	On completion of the course the learner will be able to
CO1	Realize practically some phenomena of Physics.
CO2	Acquire the skill of handling instruments.
CO3	Develop the observation and circuit drawing skills.
CO4	Enhance the skill of performing process-oriented experiments.
CO5	Verify the laws in Physics through experimental results.

<b>22SCACCH1 - CHEMISTRY I</b>	
COs	Upon successful completion of this course the students would be able
CO1	To explain theory of nuclear chemistry and chemical bonding.
CO2	To classify carbohydrates and proteins.
CO3	To synthesise polymers and heterocyclic compounds.
CO4	To apply conductivity measurements to determine degree of dissociation of weak electrolyte and pH of buffer solution.

<b>22SCACCH1 - VOLUMETRIC AND ORGANIC QUALITATIVE ANALYSIS</b>	
Cos	Upon successful completion of this course the students would be able to
CO1	To understand the use of volumetric pipette, burette and analytical balance.
CO2	To explain the principle of volumetric analysis
CO3	To prepare standard solution to find out the concentration of unknown analyte,
CO4	To understand the selection of indicators and can apply the knowledge in chemical experiments.
CO5	To understand the fundamental methods and procedures adopted in organic analysis.
CO6	To perform systematic qualitative organic analysis of common organic compounds

### Fourth Semester

<b>22SCCPH4 - ELECTRICITY MAGNETISM AND ELECTROMAGNETISM</b>	
Cos	On the completion of the course students will be able to
CO1	Understand fundamental laws of electricity and magnetism
CO2	Analyse the calibration of electrical instruments.
CO3	Verify the laws of electromagnetic induction
CO4	Apply the knowledge of electricity and magnetism towards technological applications
CO5	Differentiate magnetic materials

<b>22SCCPH4P - ELECTRICITY MAGNETISM AND ELECTROMAGNETISM</b>	
Cos	On completion of the course the learner will be able to
CO1	Realize practically some phenomena of Physics.
CO2	Acquire the skill of handling instruments.
CO3	Develop the observation and circuit drawing skills.
CO4	Enhance the skill of performing process-oriented experiments.
CO5	Verify the laws in Physics through experimental results.

<b>22SCACCH2 - CHEMISTRY II</b>	
Cos	Upon successful completion of this course the students would be able
CO1	To describe structure and functions of biologically important coordination compounds
CO2	To apply electrophilic and resonance effect to predict reactivity and stability of organic compounds
CO3	To classify the drugs based on their mode of actions.
CO4	To predict conditions for spontaneous and non-spontaneous reactions.
CO5	To calculate Gibbs free energy, work function and entropy of a reaction
CO6	To determine order of chemical reactions

<b>22SCACCH1P- VOLUMETRIC AND ORGANIC QUALITATIVE ANALYSIS</b>	
Cos	Upon successful completion of this course the students would be able:
CO1	To understand the use of volumetric pipette, burette and analytical balance.
CO2	To explain the principle of volumetric analysis
CO3	To prepare standard solution to find out the concentration of unknown analyte,
CO4	To understand the selection of indicators and can apply the knowledge in chemical experiments.
CO5	To understand the fundamental methods and procedures adopted in organic analysis.
CO6	To perform systematic qualitative organic analysis of common organic compounds

### **Fifth Semester**

<b>22SCCPH5 - OPTICS</b>	
Cos	Upon completion of this course, the students would be able to
CO1	Understand the geometrical optics
CO2	Get the knowledge about interference and holography
CO3	Acquire the theoretical aspects of diffraction and familiarize grating
CO4	Grasp the fundamentals of polarization and its classification
CO5	Understand the working principles of optical instruments like microscopes, telescopes and refractometers, etc.

<b>22SCCPH5P – OPTICS AND DIGITAL ELECTRONICS PRACTICAL</b>	
Cos	Upon completion of this course, the student would be able to
CO1	Use standard methods to calibrate the given low range voltmeter and ammeter and to measure resistance of the given coil and various physical quantities
CO2	Use of basic laws to study the spectral properties and optical properties of the given prism and grating
CO3	Use this basic circuits to create amplifier circuits, oscillator circuits, regulated power supplies etc.
CO4	Understand the given concepts and its physical significance
CO5	Apply the theory to design the basic electrical circuits

<b>22SCCPH6 - ATOMIC AND MOLECULAR PHYSICS</b>	
COs	Upon completion of this course, the student would be able to
CO1	Learn about the elements that made upon atom.
CO2	Acquire the knowledge of underpinning atomic models and the impact of magnetic and electric fields on spectra.
CO3	Communicate the concept of photoelectric cells.
CO4	Enhance the knowledge of molecular spectra
CO5	Provide a detailed study of molecular orbital theories

<b>22SCCPH7- ELECTRONICS</b>	
COs	On completion of the course the students will be able to
CO1	Understand the fundamental principles of semiconductors including p-n junctions and zener diode
CO2	Analyze the characteristics of transistor and transistor biasing circuits
CO3	Perform conversion between various number systems.
CO4	Apply knowledge of Boolean algebra and other minimization techniques for digital circuit design.
CO5	Identify, formulate and solve problems based on combinational circuits
CO6	Verify the functions of various digital integrated circuits.
CO7	Carry out the project using digital integrated circuit

## Sixth Semester

<b>22SCCPH8 - NUCLEAR PHYSICS</b>	
Cos	On completion of the course the students will be able to
CO1	Understand the fundamental principles of semiconductors including p-n junctions and zener diode
CO2	Analyze the characteristics of transistor and transistor biasing circuits
CO3	Perform conversion between various number systems.
CO4	Apply knowledge of Boolean algebra and other minimization techniques for digital circuit design.
CO5	Identify, formulate and solve problems based on combinational circuits
CO6	Verify the functions of various digital integrated circuits.
CO7	Carry out the project using digital integrated circuit

<b>22SCCPH6P - ELECTRONICS ,MICROPROCESSOR AND PROGRAMMING</b>	
Cos	Upon completion of this course, the student would be able to
CO1	Use standard methods to calibrate the given high range voltmeter and to measure resistance of the given coil and various physical quantities
CO2	Use of basic laws to study the spectral properties and optical properties of the given prism and grating
CO3	Use this basic circuits to create oscillator circuits, regulated power supplies etc.
CO4	Understand the given concepts and its physical significance
CO5	Apply the theory to design the basic electrical circuits

<b>22SCCPH9 - THEORITICAL PHYSICS</b>	
COs	On completion of the course the learner will be able to
CO1	Understand the characteristics of electronic components.
CO2	Evaluate a process based on the results obtained from the experiments quantitatively and qualitatively.
CO3	Obtain the scope of the investigation as expected.
CO4	Link a process with help of the outcomes of an experiment.
CO5	Develop the skill of experimenting collaboratively and ethically

<b>22SMBEPH2A - MICROPROCESSOR AND “ C “PROGRAMMING</b>	
COs	On completion of the course, the learner will be able to:
CO1	Perform few technical operations with electronic equipment's.
CO2	Understand the use of electronic components in Digital computers.
CO3	Acquire the skill of verifying laws in Physics through experiments.
CO4	Realize the applications of electronic devices.
CO5	Acquire the skill of applying the developed software for some scientific and industrial applications.



## DEPARTMENT OF CHEMISTRY

### First Semester

<b>CORECOURSEI</b> <b>22SCCCH1-GENERALCHEMISTRYI</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Predictperiodicpropertiesandpositionofelements intheperiodictable.
<b>CO2</b>	Applytheoreticalaspectsinqualitativeandquantitativeanalysisandworksafeandhygienicallyinlaboratories.
<b>CO3</b>	Prepareandpredictthestabilityandreactivitiesofreactionintermediates.
<b>CO4</b>	Prepare& explain the properties of colloids and emulsions.
<b>CO5</b>	Determine the Molecular Weight to macromolecules.

<b>COREPRACTICALI</b> <b>22SCCCH1PS-VOLUMETRICANALYSIS</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Tounderstandtheuseofvolumetricpipette,buretteandanalyticalbalance.
<b>CO2</b>	To Explain the principles of volumetric analysis,
<b>CO3</b>	Topreparestandardsolutiontofindouttheconcentrationsofunknownanalyte,
<b>CO4</b>	Tounderstandtheselectionofindicatorsandcanapplytheknowledgeinchemical experiments.

<b>ALLIEDCOURSEI</b> <b>22SCACBO1 -PLANT DIVERSITY, ANATOMY, ANDEMBRYOLOGY</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Illustrating the features of plant group.
<b>CO2</b>	Getknowledgeinplantgroupsandtheirfeatures
<b>CO3</b>	Categorizeorganizationalcharactersandreproductivefeaturesofplantgroups
<b>CO4</b>	Examinelifecyclesofdifferentplantgroups
<b>CO5</b>	Apply the fundamental knowledge on the embryologyandits applications.

## Second Semester

<b>ALLIED PRACTICAL I</b> <b>22SCACBO1P-PLANT DIVERSITY, ANATOMY AND EMBRYOLOGY &amp; TAXONOMY, PHYSIOLOGY, ECOLOGY AND BIOTECHNOLOGY</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Perform procedure of water estimation, chlorophyll, carotenoid and phenol.
<b>CO2</b>	Estimate the lipid, reducing sugar and amino acids by ninhydrin level
<b>CO3</b>	Understand the separation techniques.
<b>CO4</b>	Apply the knowledge on electrophoretic apparatus.
<b>CO5</b>	Apply the knowledge on plant ecology and phytogeography.
<b>CORE COURSE II</b> <b>22SCCCH2-GENERAL CHEMISTRY II</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Explain the principles and theories of chemical bonding.
<b>CO2</b>	Explain the chemistry of S-block elements and Zero group elements.
<b>CO3</b>	Apply the concept of common ion effect, solubility product in inorganic Semi micro qualitative analysis
<b>CO4</b>	Explain the reaction mechanism of haloalkanes and halobenzene
<b>CO5</b>	Explain atomic models. Atomic spectrum and dual nature of light black body radiation and significance of wave functions

<b>ALLIED COURSE II</b> <b>22SCACBO2</b> <b>TAXONOMY, PHYSIOLOGY, ECOLOGY AND BIOTECHNOLOGY</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Interpret plants based on the features on and off the field.
<b>CO2</b>	Contrast the characters of some dicot and monocot families.
<b>CO3</b>	Measure the concepts of plant functions.
<b>CO4</b>	Recognize an insight on Ecology of plants
<b>CO5</b>	Appraise the fundamental knowledge on plant biotechnology and its applications

### Third Semester

<b>ALLIED COURSE I 22SCACPH1- PHYSICS I</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO 1</b>	Apply the concepts of elasticity, viscosity and surface tension to solve problems encountered in everyday life.
<b>CO 2</b>	Understand the centre of gravity, states of equilibrium of rigid bodies and also stability of floating bodies..
<b>CO 3</b>	Understand the laws of thermodynamics, thermal conductivity and black body radiation.
<b>CO 4</b>	Understand the theories and experiments on interference and diffraction using air wedge, Newton's ring and grating.
<b>CO 5</b>	Know the formation, characteristics and applications of diodes and transistor.

<b>CORE COURSE III 22SCCCH3-GENERAL CHEMISTRY III</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Explain the chemistry of p-block elements.
<b>CO2</b>	To prepare and to predict the structure and properties of compounds of oxygen, sulphur, halogens & interhalogen compounds.
<b>CO3</b>	To predict the absolute and relative configuration of organic molecules.
<b>CO4</b>	To isolate, resolve the mixture of conformational isomers
<b>CO5</b>	To explain the gas laws, properties of real gases and types of molecular velocities.

<b>CORE PRACTICAL III 22SCCCH3P-SEMIMICRO ANALYSIS(P)</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	To understand the systematic steps to perform a qualitative analysis and the logical sequence of each step.
<b>CO2</b>	To understand chemical equilibria involving acid/base, redox, precipitation and complexation.
<b>CO3</b>	To understand the purpose of elimination of interfering acid radical, separation of groups and identifying cations and anions in aqueous solutions.
<b>CO4</b>	To plan, execute and record all the experimental results

## Fourth Semester

<b>CORECOURSEIV 22SCCCH4-GENERALCHEMISTRYIV</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	To explain the general characteristics of d and f block elements.
<b>CO2</b>	To apply the principles of metallurgy for extraction of metals from ores
<b>CO3</b>	To explain the reactions of organometallic compounds, alcohols, phenols and ethers.
<b>CO4</b>	To relate heat, work and energy and to calculate work from pressure–volume relationships.
<b>CO5</b>	To determine order of the reaction and to explain theories of reaction rates.

<b>COREPRACTICALIV 22SCCCH4P-ORGANICQUALITATIVEANALYSISAND ORGANICPREPARATION</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Understand the fundamental methods and procedures adopted in organic analysis.
<b>CO2</b>	Perform systematic qualitative organic analysis of common organic compounds
<b>CO3</b>	Detect of special elements N, S and halogens
<b>CO4</b>	Apply chemical test to identify unknown chemical species
<b>CO5</b>	Synthesise simple organic compounds on laboratory. Perform isolation and purification of organic compounds.

<b>ALLIEDCOURSEII 22SCACPH2- PHYSICS II</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Understand Coulomb's law, Gauss theorem and gain a brief knowledge of capacitors.
<b>CO2</b>	Understand the properties, types of magnetic materials and hysteresis of ferromagnetic material.
<b>CO3</b>	Acquire the knowledge of atom models and X-rays.
<b>CO4</b>	Know the basics of nucleus and their properties, nuclear reaction, nuclear models and elementary particles.
<b>CO5</b>	Learn the binary number system, binary arithmetic operations, logic gates and De-Morgan's Theorem.

<b>ALLIED PRACTICAL</b> <b>22SCACPH1P- PHYSICS PRACTICAL I</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Understand the Laboratory techniques.
<b>CO2</b>	Evaluate a process based on the results obtained from the experiments quantitatively and qualitatively.
<b>CO3</b>	Extend the scope of investigations expected.
<b>CO4</b>	Communicate a process with help of the outcomes of an experiment.
<b>CO5</b>	Develop the skill of conducting an experiment collaboratively and ethically.

### Fifth Semester

<b>CORE COURSE V</b> <b>22SCCCH5-INORGANIC CHEMISTRY</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	To predict different types of isomerism exhibited by a coordination compounds
<b>CO2</b>	To explain the various theories of coordination compounds to explain the geometry, stability and magnetic properties.
<b>CO3</b>	To explain kinetics and thermodynamic stability of coordination complexes
<b>CO4</b>	To explain preparation, magnetic properties and structure of metal carbonyls.
<b>CO5</b>	To explain preparation, magnetic properties and structure of nitrosyls.

<b>CORE COURSE VI</b> <b>22SCCCH6-ORGANIC CHEMISTRY I</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	To categorize different types of reactions of carbonyl compounds based on the reactive species and products
<b>CO2</b>	To correlate acidity of carboxylic acids based on substituents
<b>CO3</b>	To distinguish the basicity of aromatic amines and aliphatic amines based on substituents
<b>CO4</b>	To compare the properties and reactivities of five, six membered and fused heterocyclic compounds
<b>CO5</b>	To identify suitable reagent for specific reactions of oxidation and reduction, To classify the dyes according to application and structure

<b>CORECOURSEVII</b> <b>22SCCCH7-PHYSICALCHEMISTRYI</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	To correlatethe photophysical processes and their applications
<b>CO2</b>	ToapplytheprincipleofCarnotcycleinalltypesofheatenginesandworkingfluids
<b>CO3</b>	TocomputeequilibriumconstantsofPCl <sub>5</sub> ,NH <sub>3</sub> ,CaCO <sub>3</sub> atconstantpressureandconcentration
<b>CO4</b>	Toapplycolligativepropertiestodeterminethemolecularweightofsolutes,Topredictqualitativelytheeffectofchangingtemperature,pressureorconcentrationonheterogeneous systeminequilibriumusingPhasediagram
<b>CO5</b>	ToapplysymmetryoperationsandfindpointgroupofmoleculesH <sub>2</sub> O,BF <sub>3</sub> ,NH <sub>3</sub>

<b>COREPRACTICALV</b> <b>22SCCCH5P -PHYSICALCHEMISTRY</b>	
<b>C Os</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>C O1</b>	Toapplytheprinciplesofphysicalchemistrytothegivensystemandevaluatetheexperiments.
<b>C O2</b>	To understand the colligative properties ,chemical kinetics and phase equilibria
<b>C O3</b>	Tounderstandtheelectrochemicalmethodsforacid/basetitrations,conductometric/Potentiometriccurvesandevaluationmethods.
<b>C O4</b>	Todescribeelectrochemicalcellandtheelectrodepotentialsandexplainaboutreferenceelectrodes.

### Sixth Semester

<b>CORECOURSEVIII</b> <b>22SCCCH8-ORGANICCHEMISTRYII</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	Tocomprehendtheproperties,structureandconfigurationofCarbohydrates.
<b>CO2</b>	To apply the biological importance of vitamins in day today life.
<b>CO3</b>	To explain the chemistry of alkaloids and terpenoids
<b>CO4</b>	Topredicttheformationofintermediateandproductsinrearrangementreactions
<b>CO5</b>	ToillustratethetypeofelectronictransitionsinUV-Visiblespectroscopy TointerprettheNMRandIRspectraldatatoarriveatthe structureofmolecules

<b>CORECOURSEIX 22SCCCH9-PHYSICALCHEMISTRYII</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	To explain the concepts of Electrochemistry and its applications
<b>CO2</b>	Todemonstratetheconstructionofdifferentkindsofelectrochemicalcells
<b>CO3</b>	To explain the factors influencingenzymecatalysis
<b>CO4</b>	To predict the nature of adsorption using Langmuiradsorptionisotherm
<b>CO5</b>	ToidentifythefunctionalgroupsandstructureofsimplemoleculesusingIRspectroscopy TointerprettheNMRspectraofsimplemolecules.

<b>22SCCCH6P-GRAVIMETRIC ANALYSIS AND DETERMINATION OF PHYSICAL CONSTANT</b>	
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<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to.....
<b>CO1</b>	To recognize the principles of gravimetric analysis.
<b>CO2</b>	To understand the basics of gravimetric analysis of selected cations involving methods, selection of precipitants, nucleation, aggregation of precipitate, removal of contamination and weighing a precipitate.
<b>CO3</b>	To conduct experiments to determine physical constant of unknown compounds.
<b>CO4</b>	To use proper apparatus to minimize the errors.

## DEPARTMENT OF COMPUTER SCIENCE

### First Semester

<b>22SCCCS1-Programming in C and Data Structure</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected to
<b>CO1</b>	Ability to understand the structure and development methodologies of software systems
<b>CO2</b>	Manipulate Looping, arrays and functions
<b>CO3</b>	Apply and write programs for solving real world problems
<b>CO4</b>	Create open, read, manipulate, write and close files.
<b>CO5</b>	Understand the basic concepts in data structures.

<b>22SCCCS1P-Programming in C and Data Structure And Lab</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected
<b>CO1</b>	Relate the use of language constructs to solve simple programs
<b>CO2</b>	Develop programs for various concepts in C language
<b>CO3</b>	Understand and trace the execution of the list of programs
<b>CO4</b>	Understand the usage of file handling in C programming
<b>CO5</b>	Solve data problems related to data structures.

<b>22SCACMM2A-Algebra and Calculus</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected
<b>CO1</b>	Train the students to solve the problems in theory of equations
<b>CO2</b>	Apply Cayley Hamilton theorem for finding the inverse of square matrices.
<b>CO3</b>	Get exposed the basic concepts of differentiation and integration.
<b>CO4</b>	Acquire the knowledge about differential equations.
<b>CO5</b>	Apply suitable techniques of differentiation and integration to various functions and identify the maxima and minima of functions of one variable.

<b>22SCACMM2B-Numerical Analysis And Probability</b>	
<b>COs</b>	Solve algebraic and transcendental equations
<b>CO1</b>	Appreciate the importance of probability of random variables and understand the correlation and regression coefficients.
<b>CO2</b>	Apply Probability theory to find the chances of happening of events.
<b>CO3</b>	Understand various probability distributions and calculate their statistical Constants.
<b>CO4</b>	Apply numerical methods to solve algebraic and transcendental equations
<b>CO5</b>	Derive interpolating polynomials using interpolation formulae

### Second Semester



<b>22SCCCS2-Programming In Java</b>	
<b>COs</b>	Understand the concept of OOP as well as the purpose and usage principles of inheritance, polymorphism, encapsulation and method overloading.
<b>CO1</b>	Identify members of a class and to implement them
<b>CO2</b>	Create Java application programs using sound OOP practices e.g., interfaces and APIs and proper program structuring e.g., by using access control identifies, and create user define package for specific task,reusability concepts error exception handling.
<b>CO3</b>	Develop programs using the Java standard class library.
<b>CO4</b>	Develop software using Java programming language, using applet, AWT controls, and JDBC.
<b>CO5</b>	Understand the concept of OOP as well as the purpose and usage principles of inheritance, polymorphism, encapsulation and method overloading.

<b>22SCCCS2P-Programming In Java Lab</b>	
<b>COs</b>	Develop java programs to understand the OOP concepts.
<b>CO1</b>	Write java programs for classes and objects.
<b>CO2</b>	Develop simple programs with multiple threads.
<b>CO3</b>	Write java programs using Applets.
<b>CO4</b>	Develop java programs to connect databases and files
<b>CO5</b>	Develop java programs to understand the OOP concepts.

<b>22SCACMM2C-Operation Research</b>	
<b>COs</b>	On successful completion of the course, the student will be able to
<b>CO1</b>	Acquire the basic concepts of LPP
<b>CO2</b>	Apply various methods for finding a solution of an LPP
<b>CO3</b>	Use the basic concepts of TP, AP and Network Problems to develop the problem solving skills.
<b>CO4</b>	Solve linear programming problems using appropriate techniques and optimization solvers, interpret the results obtained.
<b>CO5</b>	Equips students with necessary mathematical and statistical tools and techniques

### Third Semester

<b>22SCCCS3-Programming In Python</b>	
<b>COs</b>	To recall and understand the features of python programming language
<b>CO1</b>	To illustrate various programming mechanism used in python
<b>CO2</b>	To apply various language construct to write simple programs in python
<b>CO3</b>	To examine the application of object oriented concept in python
<b>CO4</b>	To distinguish the various constructs used in python.
<b>CO5</b>	To recall and understand the features of python programming language

<b>22SCCCS3P-Programming In Python Lab</b>	
<b>COs</b>	Knowledge simple programs using control structures, functions and strings
<b>CO1</b>	Develop programs using tuples, lists, sets and dictionary
<b>CO2</b>	Understand simple programs using Constructors, Method overloading and inheritance
<b>CO3</b>	Develop programs using files and regular expressions
<b>CO4</b>	Knowledge simple programs using packages and exception handling
<b>CO5</b>	Develop simple programs using control structures, functions and strings

<b>22SCACAP1-Applied Physics I</b>	
<b>COs</b>	Recall the basic concepts of current electricity and its various laws
<b>CO1</b>	Solve basic electronics problems with ac circuits that involve capacitance, inductance, impedance, reactance and power calculations.
<b>CO2</b>	Differentiate all the four number systems studied.
<b>CO3</b>	Review Boolean algebra and draw arithmetic circuits
<b>CO4</b>	Analyse the calibration of electrical instruments
<b>CO5</b>	Recall the basic concepts of current electricity and its various laws

<b>22SCACAP1P-Applied Physics I Lab</b>	
<b>COs</b>	Gain the practical knowledge about electricity, magnetism and measurements such as resistance, voltage, current.
<b>CO1</b>	Distinguish electronic components
<b>CO2</b>	Construct the learnt electronic circuits on their own
<b>CO3</b>	Analyze the logic gates and their usage in digital circuits.
<b>CO4</b>	Develop the skill of conducting an experiment collaboratively.
<b>CO5</b>	Gain the practical knowledge about electricity, magnetism and measurements such as resistance, voltage, current.

### Fourth Semester

<b>22SCCCS4-Database Management Systems</b>	
<b>COs</b>	Understand the basic concepts of Database Systems
<b>CO1</b>	Know about SQL queries to interact with Database
<b>CO2</b>	Design a Database using ER Modeling
<b>CO3</b>	Apply normalization on database design to eliminate anomalies
<b>CO4</b>	Analyze database transactions and to control them by applying ACID properties
<b>CO5</b>	Understand the basic concepts of Database Systems

<b>22SCCCSP4-Database Management Systems Lab</b>	
<b>COs</b>	Write queries to manipulate data.
<b>CO1</b>	Demonstrate the aggregate functions and set operations
<b>CO2</b>	Apply the join operations
<b>CO3</b>	Know about usage of nested sub queries
<b>CO4</b>	Understand the method to create views
<b>CO5</b>	Write queries to manipulate data.

<b>22SCACAP1P-Applied Physics II</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected
<b>CO1</b>	Knowledge regarding the procedures to form a company.
<b>CO2</b>	Knowledge regarding how to prepare the documents of a company.
<b>CO3</b>	Knowledge how to raise their owned capital and borrowings
<b>CO4</b>	Knowledge about the types of company meetings.
<b>CO5</b>	Knowledge about the procedure for windup a company.

<b>22SCACAP2-Applied Physics II Lab</b>	
<b>COs</b>	Gain the practical knowledge about electricity, magnetism and measurements such as resistance, voltage, current.
<b>CO1</b>	Distinguish electronic components
<b>CO2</b>	Construct the learnt electronic circuits on their own
<b>CO3</b>	Analyze the logic gates and their usage in digital circuits.
<b>CO4</b>	Develop the skill of conducting an experiment collaboratively.
<b>CO5</b>	Gain the practical knowledge about electricity, magnetism and measurements such as resistance, voltage, current.

## Fifth Semester

<b>22SCCCS5-Fundamentals Of Algorithms</b>	
<b>COs</b>	Know the basic concepts of algorithms
<b>CO1</b>	Understand trees and shortest path algorithms
<b>CO2</b>	Compare and contrast different sorting algorithms
<b>CO3</b>	Comprehend greedy and optimality algorithms
<b>CO4</b>	Appreciate the backtracking concept and its different algorithms
<b>CO5</b>	Know the basic concepts of algorithms

<b>22SCCCS6-Computer Networks</b>	
<b>COs</b>	Recall the basic concepts of computer networks
<b>CO1</b>	Summarize the technical specifications of various layers of the OSI model in a computer network
<b>CO2</b>	Identify the appropriate protocols and standards for computer networks
<b>CO3</b>	Classify technical factors of cellular networks and satellite communication
<b>CO4</b>	Know about the different functionalities of an application layer.
<b>CO5</b>	Recall the basic concepts of computer networks

<b>22SCCCS7-Digital Electronics And Microprocessor</b>	
<b>COs</b>	Understand about various number systems
<b>CO1</b>	Know about Boolean Algebra and Logic Gates
<b>CO2</b>	Draw and explain Combinational circuits
<b>CO3</b>	Explain the Evolution of Microprocessors
<b>CO4</b>	Use the Instruction Set of Intel 8085 in simple programs
<b>CO5</b>	Understand about various number systems

<b>22SCCCS5P-Digital Electronics And Microprocessor lab</b>	
<b>COs</b>	On successful completion of the course, the student will be able to
<b>CO1</b>	Learn importance of Microprocessors in designing real time applications
<b>CO2</b>	Describe the 8085,8086 & 80386 Microprocessors architectures and its feature.
<b>CO3</b>	Develop interfacing to real world devices
<b>CO4</b>	Learn use of hardware & software tools.
<b>CO5</b>	

<b>22MBECS1B-Computer Graphics</b>	
<b>COs</b>	Understand the basics of Computer Graphics, Different Graphics Systems and Applications of Computer Graphics.
<b>CO1</b>	Learn Algorithms for Scan Conversion and filling of Basic Objects and their Comparative Analysis
<b>CO2</b>	Use of Geometric Transformations on Graphical Objects and their Application in Composite form.
<b>CO3</b>	Apply 2D Geometric Transformations
<b>CO4</b>	Use 3D Geometric and Modeling Transformations
<b>CO5</b>	Understand the basics of Computer Graphics, Different Graphics Systems and Applications of Computer Graphics.

## Sixth Semester

<b>22SCCCS8-Programming In PHP</b>	
<b>COs</b>	Understand the fundamental knowledge of developing web applications with PHP
<b>CO1</b>	Illustrate the advanced concepts like strings, arrays and functions
<b>CO2</b>	Design Web based applications.
<b>CO3</b>	Analyze and solve various database tasks using PHP
<b>CO4</b>	Develop AJAX based applications
<b>CO5</b>	Understand the fundamental knowledge of developing web applications with PHP

<b>22SCCCS6P-Programming In PHP Lab</b>	
<b>COs</b>	Understand the fundamental knowledge of developing web applications with PHP lab
<b>CO1</b>	Design web pages for different applications with MYSQL
<b>CO2</b>	Handle files, sessions and cookies by downloading a file from the server
<b>CO3</b>	Develop real-time applications
<b>CO4</b>	Gain experience in drawing images using Ajax
<b>CO5</b>	Learn PHP programming on handling strings and arrays

<b>22SCCCS8-Operating Systems</b>	
<b>COs</b>	Understand the basic principles and importance of the operating system in a computer
<b>CO1</b>	Illustrate the objectives and functions of the operating system components
<b>CO2</b>	Identify the various operating system techniques
<b>CO3</b>	Analyse the issues and challenges of the operating system and security mechanisms
<b>CO4</b>	Evaluate the functions and features of file management in operating systems
<b>CO5</b>	Recall the basic principles and importance of the operating system in a computer

<b>22MBECS2A-Software Engineering</b>	
<b>COs</b>	Understand the basic principles and importance of the operating system in a computer
<b>CO1</b>	Illustrate the objectives and functions of the operating system components
<b>CO2</b>	Identify the various operating system techniques
<b>CO3</b>	Analyse the issues and challenges of the operating system and security mechanisms
<b>CO4</b>	Evaluate the functions and features of file management in operating systems
<b>CO5</b>	Recall the basic principles and importance of the operating system in a computer

## DEPARTMENT OF COMPUTER APPLICATIONS

### First Semester

<b>22SCCCA1-Programming in C and Data Structure</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected
<b>CO1</b>	Ability to understand the structure and development methodologies of software systems
<b>CO2</b>	Manipulate Looping, arrays and functions
<b>CO3</b>	Apply and write programs for solving real world problems
<b>CO4</b>	Create open, read, manipulate, write and close files.
<b>CO5</b>	Understand the basic concepts in data structures.

<b>22SCCCA1P-Programming in C and Data Structure And Lab</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected
<b>CO1</b>	Relate the use of language constructs to solve simple programs
<b>CO2</b>	Develop programs for various concepts in C language
<b>CO3</b>	Understand and trace the execution of the list of programs
<b>CO4</b>	Understand the usage of file handling in C programming
<b>CO5</b>	Solve data problems related to data structures.

<b>22SCACMM2A-Algebra and Calculus</b>	
<b>COs</b>	Course Outcome The students, after the complete of the course, are expected
<b>CO1</b>	Train the students to solve the problems in theory of equations
<b>CO2</b>	Apply Cayley Hamilton theorem for finding the inverse of square matrices.
<b>CO3</b>	Get exposed the basic concepts of differentiation and integration.
<b>CO4</b>	Acquire the knowledge about differential equations.
<b>CO5</b>	Apply suitable techniques of differentiation and integration to various functions and identify the maxima and minima of functions of one variable.

<b>22SCACMM2B-Numerical Analysis And Probability</b>	
<b>COs</b>	Solve algebraic and transcendental equations
<b>CO1</b>	Appreciate the importance of probability of random variables and understand the correlation and regression coefficients.
<b>CO2</b>	Apply Probability theory to find the chances of happening of events.
<b>CO3</b>	Understand various probability distributions and calculate their statistical Constants.
<b>CO4</b>	Apply numerical methods to solve algebraic and transcendental equations
<b>CO5</b>	Derive interpolating polynomials using interpolation formulae

### Second Semester

<b>22SCCCA2-Programming In Java</b>	
<b>COs</b>	Understand the concept of OOP as well as the purpose and usage principles of inheritance, polymorphism, encapsulation and method overloading.
<b>CO1</b>	Identify members of a class and to implement them
<b>CO2</b>	Create Java application programs using sound OOP practices e.g., interfaces and APIs and proper program structuring e.g., by using access control identifies, and create user define package for specific task, reusability concepts error exception handling.
<b>CO3</b>	Develop programs using the Java standard class library.
<b>CO4</b>	Develop software using Java programming language, using applet, AWT controls, and JDBC.
<b>CO5</b>	Understand the concept of OOP as well as the purpose and usage principles of inheritance, polymorphism, encapsulation and method overloading.

<b>22SCCCA2P-Programming In Java Lab</b>	
<b>COs</b>	Develop java programs to understand the OOP concepts.
<b>CO1</b>	Write java programs for classes and objects.
<b>CO2</b>	Develop simple programs with multiple threads.
<b>CO3</b>	Write java programs using Applets.
<b>CO4</b>	Develop java programs to connect databases and files
<b>CO5</b>	Develop java programs to understand the OOP concepts.

<b>22SCACMM2C-Operation Research</b>	
<b>COs</b>	On successful completion of the course, the student will be able to
<b>CO1</b>	Acquire the basic concepts of LPP
<b>CO2</b>	Apply various methods for finding a solution of an LPP
<b>CO3</b>	Use the basic concepts of TP, AP and Network Problems to develop the problem solving skills.
<b>CO4</b>	Solve linear programming problems using appropriate techniques and optimization solvers, interpret the results obtained.
<b>CO5</b>	Equips students with necessary mathematical and statistical tools and techniques

### Third Semester

<b>22SCCCA3-Programming In Python</b>	
<b>COs</b>	To recall and understand the features of python programming language
<b>CO1</b>	To illustrate various programming mechanism used in python
<b>CO2</b>	To apply various language construct to write simple programs in python
<b>CO3</b>	To examine the application of object oriented concept in python
<b>CO4</b>	To distinguish the various constructs used in python.
<b>CO5</b>	To recall and understand the features of python programming language

<b>22SCCCA3P-Programming In Python Lab</b>	
<b>COs</b>	Knowledge simple programs using control structures, functions and strings
<b>CO1</b>	Develop programs using tuples, lists, sets and dictionary
<b>CO2</b>	Understand simple programs using Constructors, Method overloading and inheritance
<b>CO3</b>	Develop programs using files and regular expressions
<b>CO4</b>	Knowledge simple programs using packages and exception handling
<b>CO5</b>	Develop simple programs using control structures, functions and strings

<b>22SCACAOB1-Principles Of Accounting</b>	
<b>COs</b>	On successful completion of the subject, the students acquired knowledge about
<b>CO1</b>	The Concepts and Conventions of Financial Accounting
<b>CO2</b>	Preparation of Accounts of cash book.
<b>CO3</b>	Accounting for sole traders with adjustment entries.
<b>CO4</b>	Rectification of Errors
<b>CO5</b>	Preparation of Bills of Exchange.



## Fourth Semester

<b>22SCCCA4-Database Management Systems</b>	
<b>COs</b>	Understand the basic concepts of Database Systems
<b>CO1</b>	Know about SQL queries to interact with Database
<b>CO2</b>	Design a Database using ER Modeling
<b>CO3</b>	Apply normalization on database design to eliminate anomalies
<b>CO4</b>	Analyze database transactions and to control them by applying ACID properties
<b>CO5</b>	Understand the basic concepts of Database Systems

<b>22SCCCA4P-Database Management Systems Lab</b>	
<b>COs</b>	Write queries to manipulate data.
<b>CO1</b>	Demonstrate the aggregate functions and set operations
<b>CO2</b>	Apply the join operations
<b>CO3</b>	Know about usage of nested sub queries
<b>CO4</b>	Understand the method to create views
<b>CO5</b>	Write queries to manipulate data.

<b>22SCACA0B3-Organisational Behaviour</b>	
<b>COs</b>	On successful completion of the subject, the students acquired knowledge about
<b>CO1</b>	The meaning and concept of Organisational Behaviour.
<b>CO2</b>	Fundamentals of Individual behaviour and Theories of personality
<b>CO3</b>	Attitude, concepts of value and Learning.
<b>CO4</b>	Group Behaviour, group formation and Job stress
<b>CO5</b>	Leadership and styles of Leadership

<b>22SCACA0B2-Computer Application In Business</b>	
<b>COs</b>	On successful completion of the course, the students will acquire knowledge on
<b>CO1</b>	Basics of computer application in business. and Creating and editing of word documents, opening, saving and closing documents; and mail merge
<b>CO2</b>	Spread sheet programmes and applications, creating and formatting different types of charts, and application of financial and statistical function.
<b>CO3</b>	Architecture and customization of Tally, Editing and deleting ledgers, and Vouchers entry
<b>CO4</b>	Accounting of inventories, Budget and controls
<b>CO5</b>	Day books, Trial balance, final account and Bank Reconciliation Statement

## Fifth Semester

<b>22SCCCA5-Fundamentals Of Algorithms</b>	
<b>COs</b>	Know the basic concepts of algorithms
<b>CO1</b>	Understand trees and shortest path algorithms
<b>CO2</b>	Compare and contrast different sorting algorithms
<b>CO3</b>	Comprehend greedy and optimality algorithms
<b>CO4</b>	Appreciate the backtracking concept and its different algorithms
<b>CO5</b>	Know the basic concepts of algorithms

<b>22SCCCA6-Computer Networks</b>	
<b>COs</b>	Recall the basic concepts of computer networks
<b>CO1</b>	Summarize the technical specifications of various layers of the OSI model in a computer network
<b>CO2</b>	Identify the appropriate protocols and standards for computer networks
<b>CO3</b>	Classify technical factors of cellular networks and satellite communication
<b>CO4</b>	Know about the different functionalities of an application layer.
<b>CO5</b>	Recall the basic concepts of computer networks

<b>22SCCCA7-Web Technology</b>	
<b>COs</b>	On successful completion of the course, the student will be able to
<b>CO1</b>	Understand and apply the webpage concepts and apply to the technology.
<b>CO2</b>	Develop static and dynamic web pages
<b>CO3</b>	Understand the feature of JavaScript and VB Script
<b>CO4</b>	Develop knowledge about XML fundamentals and usage of XML technology
<b>CO5</b>	Understand about the web design with XSL and data validation with DTD
<b>22SCCCA5P-Web Technology Lab</b>	
<b>COs</b>	Understand the basics of Computer Graphics, Different Graphics Systems and Applications of Computer Graphics.
<b>CO1</b>	Develop web pages using HTML, DHTML and Cascading Styles sheets Develop a dynamic web pages using JavaScript (client side programming)
<b>CO2</b>	Develop an interactive web applications using VB Scrip
<b>CO3</b>	Build and consume web services
<b>CO4</b>	Develop a Program using XML
<b>CO5</b>	Develop Cascading Styles sheets Develop a dynamic web pages using JavaScript (client side programming)

<b>22SCCCA9-Programming In PHP</b>	
<b>COs</b>	Understand the fundamental knowledge of developing web applications with PHP
<b>CO1</b>	Illustrate the advanced concepts like strings, arrays and functions
<b>CO2</b>	Design Web based applications.
<b>CO3</b>	Analyze and solve various database tasks using PHP
<b>CO4</b>	Develop AJAX based applications
<b>CO5</b>	Understand the fundamental knowledge of developing web applications with PHP

<b>22SCCCA9P-Programming In PHP Lab</b>	
<b>COs</b>	Understand the fundamental knowledge of developing web applications with PHP lab
<b>CO1</b>	Design web pages for different applications with MYSQL
<b>CO2</b>	Handle files, sessions and cookies by downloading a file from the server
<b>CO3</b>	Develop real-time applications
<b>CO4</b>	Gain experience in drawing images using Ajax
<b>CO5</b>	Learn PHP programming on handling strings and arrays

<b>22SCCCA8-Operating Systems</b>	
<b>COs</b>	Understand the basic principles and importance of the operating system in a computer
<b>CO1</b>	Illustrate the objectives and functions of the operating system components
<b>CO2</b>	Identify the various operating system techniques
<b>CO3</b>	Analyse the issues and challenges of the operating system and security mechanisms
<b>CO4</b>	Evaluate the functions and features of file management in operating systems
<b>CO5</b>	Recall the basic principles and importance of the operating system in a computer

<b>22SEMBECA2B-E Commerce Technologies</b>	
<b>COs</b>	Upon successful completion of this course the students would be able to
<b>CO1</b>	Know the E-Commerce process
<b>CO2</b>	Describe an example of system architecture for an e-Business system
<b>CO3</b>	Use and appreciate elements of web design.
<b>CO4</b>	Identify and explain fundamental web site tools including design tools, programming tools, and data processing tools.
<b>CO5</b>	Identify the major electronic payment issues and solutions

## First Semester

S.No	COURSE CODE: 22SCCZO1      CORE COURSE 1: INVERTEBRATA	
Upon successful completion of this course the students would be able to:		
1	Understand the principles of taxonomy and classification of invertebrates.	K3
2	Acquire knowledge on the characteristic features of invertebrates.	K3
3	Identify the any species at basic level of morphology.	K4
4	Aware of the   multiparasitism of helminthes and their dynamics in a changing world.	K2
5	Understand the economic and ecological importance of   Porifera, Coelenterata and Mollusca.	K1

S.No	<b>COURSE CODE: 22SCCZO1P</b> <b>CORE PRACTICAL(P): INVERTEBRATA</b>	
Upon successful completion of this course the students would be able to:		
1	Gain first-hand knowledge to identify and group non-chordate (species of fresh and preserved) along with larval forms.	K3
2	Analyze the relationship between organisms and their environment.	K5
3	Recognize the diversity from Protozoa to Echinodermata using their morphological structures.	K2
4	Virtually visualize and understand the anatomy and functional features of invertebrates.	K3
5	Fortify the ecological and economic importance of invertebrate diversity in their habitat.	K5
<b>K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze ;K5 – Evaluate; K6 - Create</b>		

S.No	<b>COURSE CODE: 22SCACBO1</b> <b>ALLIED COURSE :I ALLIED BOTANY –I PLANT DIVERSITY, ANATOMY, AND EMBRYOLOGY</b>	
Upon successful completion of this course the students would be able to:		
1	Outline the characteristics and compare the life cycle of algae, fungi, bryophytes and gymnosperms.	K4
2	Predict the usage of algae and fungi plant species.	K2
3	Relate the life cycle phases in the algal hierarchy and to categorize the economically important algae.	K1
4	Analyse the alternation of Generation in bryophytes and recognize the ecological and economic importance of bryophyte.	K5
5	Compare the thallus organization and reproduction in Lichens and assess their ecological and biological significance.	K3

## Second Semester

S.No	COURSE CODE: 22SCCZO2                      CORE COURSE 1I: CHORDATA	
Upon successful completion of this course the students would be able to:		
1	Understand about the vertebrates up to order level with suitable examples.	K3
2	Gain knowledge about the adaptation and migration of important tetrapods.	K5
3	Understand about the vertebrates in the food web and its diversity.	K3
4	Relate about the adaptations of flightless birds and migration of birds.	K4
5	Perceive information on the evolutionary relationships of tetrapods.	K5

S.No	COURSE CODE: 22SCCZO2P                      CORE PRACTICAL 1I(P) : CHORDATA	
Upon successful completion of this course the students would be able to:		
1	Understand the classification of vertebrates	K1
2	Identify and recognize the organisms by key characters.	K2
3	Integrate the ecological adaptation of the studied species.	K4
4	Relate the adaptive behaviour of vertebrates.	K5
5	Virtually clarify the functional structure in tetrapods.	K4

<b>S.No</b>	<b>COURSE CODE: 22SCACBO2</b> <b>CORE COURSE :II ALLIEDBOTANY MORPHOLOGY, TAXONOMY, ANATOMY, EMBRYOLOGY AND HORTICULTURE</b>	
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Upon successful completion of this course the students would be able to:		
1	Explain the classification and categories of plant taxonomy.	K1
2	Discuss the basic concepts in plant morphology and taxonomy.	K5
3	Discuss the basic concepts of biotic and abiotic factors in an ecosystem.	K6
4	Illustrate the different levels of plant succession in vegetation.	K3
5	Identify various ecological adaptations in plants.	K4

<b>S.No</b>	<b>COURSE CODE:22SCACBO1P</b>	<b>ALLIED PRACTICAL –I</b>	<b>ALLIED</b>
	<b>BOTANY</b>		
Upon successful completion of this course the students would be able to:			
1	Outline the characteristics and compare the life cycle of algae, fungi, bryophytes and gymnosperms.		K1
2	Predict the usage of algae and fungi plant species.		K5
3	Explain the classification and categories of plant taxonomy.		K6
4	Discuss the basic concepts in plant morphology and taxonomy.		K3
5	Discuss the basic concepts of biotic and abiotic factors in an ecosystem.		K4

### Third Semester

S.No	COURSE CODE: 22SCCZO3 CORE COURSE 1II: CELL AND MOLECULAR BIOLOGY	
Upon successful completion of this course the students would be able to:		
1	Understand the principles of microscopes and cytological techniques.	K1
2	Describe the structure and functions cell and cell organelles.	K2
3	Recognize the properties of cytoplasm and ultra-structure of nucleus and the metabolic machinery of the cell.	K4
4	Explain cell cycle and types of cell division	K5
5	Relate on molecular events of cell and in cancer biology.	K4

<b>S.No</b>	<b>COURSE CODE: 22SCCZO3P</b> <b>CORE PRACTICAL III: CELL AND MOLECULAR BIOLOGY</b>	
Upon successful completion of this course the students would be able to:		
1	Familiarize on the handling of microscopes and its applications	K2
2	Differentiate the cell cycle stages in plant / animal cells.	K3
3	Infer the importance of giant chromosomes during the development of larval stages.	K5
4	Handle and perform the histological procedures and observation of stages.	K6
5	Relate the fundamental composition of blood components.	K3

<b>S.No</b>	<b>COURSE CODE: 22SCACCH1 ALLIED COURSE –I CHEMISTRY I</b>
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Upon successful completion of this course the students would be able to:		
1	To describe structure and functions of biologically important coordination compounds	K2
2	To apply eletrometric and resonance effect to predict reactivity and stability of organic compounds	K3
3	To classify the drugs based on their mode of actions. To predict conditions for spontaneous and non-spontaneous reactions.	K5
4	To calculate Gibb's free energy, work function and entropy of a reaction	K6
5	To determine order of chemical reactions	K3

### Fourth Semester

<b>S.No</b>	<b>COURSE CODE: 22SCCZO4</b> <b>CORE COURSE IV: MICROBIOLOGY</b>	
Upon successful completion of this course the students would be able to:		
1	Apply knowledge to understand classification of microbes and its basic characteristics.	K1
2	Acquire information on methods of sterilization of microbial cultures and requirements for the media preparation	K3
3	Attain knowledge about the interactions of microbes with their ecosystem.	K2
4	Perceive the role / action mechanism microbes on food spoilage and the principles of food preservation	K4
5	Comprehend various diseases caused by the microbes and its treatments.	K5

<b>S.No</b>	<b>COURSE CODE: 22SCCZO4P</b> <b>CORE PRACTICAL IV: MICROBIOLOGY</b>	
Upon successful completion of this course the students would be able to:		
1	Enrich the knowledge on handling microbes in laboratory conditions.	K1
2	Comprehend the diversity of microbes in various environments.	K3
3	Understand the methods of the culture of bacterial strains in laboratory conditions.	K2
4	Perceive information on the morphological identification of various microbes.	K4
5	Acquire knowledge of pathogenic and non-pathogenic microbes.	K6



S.No	<b>COURSE CODE: 22SCACCH2</b> <b>ALLIED COURSE –II CHEMISTRY II</b>	
Upon successful completion of this course the students would be able to:		
1	To explain theory of nuclear chemistry and chemical bonding.	K1
2	To classify carbohydrates and proteins.	K3
3	To synthesize polymers and hetero cyclic compounds.	K3
4	To apply conductivity measurements to determine degree of dissociation of weak electrolyte and pH of buffer solution	K5
5	To explain preparation and applications of emulsion and gels in chromatography.	K6

S.No	<b>COURSE CODE: 22SCACCH1P</b> <b>ALLIED PRACTICAL-Volumetric and Organic Qualitative Analysis – Practical</b>	
Upon successful completion of this course the students would be able to:		
1	To understand the use of volumetric pipette, burette and analytical balance.	K1
2	To explain the principles of volumetric analysis,	K3
3	To prepare standard solution to find out the concentrations of unknown analyte	K4
4	To understand the selection of indicators and can apply the knowledge in chemical experiments	K2
5	To perform systematic qualitative organic analysis of common organic compounds.	K5

### Fifth Semester

	<b>COURSE CODE: 22SCCZO5</b>	
<b>S.No</b>	<b>CORE COURSE:V DEVELOPMENTAL BIOLOGY</b>	
Upon successful completion of this course the students would be able to:		
1	Understand the basic theories of development of embryo and its stages.	K4
2	Compare the formation of gametogenesis in the various Invertebrate and Vertebrates.	K3
3	Relate the process of fertilization with the onset of cleavage and gastrulation process.	K2
4	Know the basics of development of organs, functions of extra embryonic membranes and physiology of placenta.	K4
5	Logically view the concept infertility, birth control and applications of cryopreservation techniques.	K3

<b>S.No</b>	<b>COURSE CODE: 22SCCZO6</b> <b>CORE COURSE:VI GENETICS AND EVOLUTION</b>	
Upon successful completion of this course the students would be able to:		
1	Comprehend and understand the chemical basis of evolution.	K1
2	Understand about one role of genetics in evolution.	K3
3	Evolve conclusion that are based on genetics data.	K4
4	Relate the origin of species on earth by observed theories and experiments.	K5
5	Describe evolutionary history of Vertebrates.	K2

S.No	COURSE CODE: 22SCCZO7 CORE COURSE:VII IMMUNOLOGY	
Upon successful completion of this course the students would be able to:		
1	Understand the difference types of natural and acquired immunity	K1
2	Comprehend the Classification of immunoglobulins and their roles during antigenic response.	K3
3	Relate various mechanisms that regulate immune responses.	K2
4	Realize the adverse effects of immune system causing autoimmune disorders and therapeutic advancements	K4
5	Perceive the applications antigen-antibody interactions by immunological techniques.	K5

<b>S.No</b>	<b>COURSE CODE: 22SCCZO5P</b> <b>CORE PRACTICAL V DEVELOPEMENTAL BIOLOGY,GENETICS AND EVOLUTION,IMMUNOLOGY</b>	
Upon successful completion of this course the students would be able to:		
1	Gain knowledge on the importance of heredity of all living organisms	K1
2	Acquire idea about the blood types and its grouping.	K5
3	Understand the concept of Mendelian traits and pedigree concept.	K3
4	Realize the paleontological evidences of evolution of organisms.	K4
5	Be aware on the concept of mimicry and colouration.	K2

## Sixth Semester

S.No	<b>COURSE CODE:22SCCZO8</b> <b>CORE COURSE: VIII ANIMAL PHYSIOLOGY</b>	
Upon successful completion of this course the students would be able to:		
1	Understand and analyze the nutritional requirements and its calorific values.	K1
2	Explain and recognize the physiological structure and functions of various organs.	K3
3	Gain anatomical knowledge in predicting the physiological changes and its consequences.	K2
4	Understand and relate the physiological activity of sensory organs.	K5
5	Distinguish the types and functions of endocrine glands.	K4

S.No	<b>COURSE CODE:22SCCZO9</b> <b>CORE COURSE IX BIOTECHNOLOGY</b>	
Upon successful completion of this course the students would be able to:		
1	Know the scope and various applications in biotechnology.	K2
2	Realize gene cloning principles in Prokaryotes and basic techniques involved in human genome project.	K3
3	Acquire knowledge on techniques and the applications of genetic engineering in diagnosis and prevention of genetic diseases.	K4
4	Understand applications of transgenic animals.	K2
5	Apply with gained knowledge on recombinant DNA technology in solving environmental issues.	K1

S.No	COURSE CODE:22SCCZO6P CORE PRACTICAL:VI (P) ANIMAL PHYSIOLOGY AND BIOTECHNOLOGY	
Upon successful completion of this course the students would be able to:		
1	Perform physiological and biochemical assays.	K1
2	Carry out qualitative and quantitative estimations of various biomolecules.	K2
3	Expertise in the quantification of RBC and WBC of human blood and identify pH of any sample.	K3
4	Gain well versed knowledge on structural aspects of DNA, plasmid, and proteins.	K4
5	Get exposure on types of electrophoresis with special reference to the separation of DNA and protein.	K5