



## MEENAKSHI CHANDRASEKARAN COLLEGE OF ARTS & SCIENCE

Thanjavur Main Road, Karambayam,  
Pattukkottai, Thanjavur-614 626, Tamil Nadu

### COURSE OUTCOME AND PROGRAMME OUTCOME



*Submitted by:*

**IQAC**

**MEENAKSHI CHANDRASEKARAN COLLEGE OF ARTS AND SCIENCE,  
PATTUKOTTAI-614 626, THANJAVUR (DT)**



# MEENAKSHI CHANDRASEKARAN COLLEGE OF ARTS AND SCIENCE

(Affiliated to Bharathidasan University, Tiruchirappalli- 620 024.)

UGC Recognized 2(f) and 12(B) Institution

Thanjavur Main Road, Karambayam, Pattukkottai - 614626.

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## DEPARTMENT OF TAMIL

Programme: B.Lit Tamil

### PROGRAMME OUTCOMES (PO)

PO No.	Programme outcomes <i>Upon completion of the B.Lit., Degree Programme, the graduate will be able to</i>
PO1	Understand and appreciate professional ethics.
PO2	Realize the epics' ideal thoughts.
PO3	Analyze the Tamils' inner and outward lives and how they interact with one another.
PO4	Find out more about the history and culture.
PO5	Make aware of journalistic principles.
PO6	Learn about the distinctive features of specialized literature.

### PROGRAMME SPECIFIC OUTCOMES (PSO)

PSO No.	Programme Specific Outcomes <i>Upon completion of these courses the student would</i>
PSO1	The predominant outcome of the program with a number of skill, value based and personality development courses.
PSO2	To inculcate certain basic language skills and aptitude, this will be useful in taking up particular activity in community.
PSO3	Appreciate literary texts and develop creative ideas. Demonstrate the social and Communication Skills.
PSO4	Develop the skills required to become graduate teachers at various levels.
PSO5	Acquire the skills needed to pursue career of civil servants both at union and state level.
PSO6	Knowing the fundamentals of research to pursue research career as a mission.

## COURSE OUTCOMES (CO)

<b>Part I : Ikkala Ilakkiyam</b>		<b>Subject code: 22LCT1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the concept of poem and short stories.	<b>U</b>
<b>CO2</b>	Comprehend the structures of literature.	<b>R</b>
<b>CO3</b>	Describe the kinds of poem.	<b>E</b>
<b>CO4</b>	Develop writing skills to write poem.	<b>E</b>
<b>CO5</b>	Analyze the phases of short story.	<b>AN</b>
<b>Core Course I: Ikkala Ilakkiyam(Kavithaium Urainadaium)</b>		<b>Subject Code: 22ACCBL1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Develop a nationalistic spirit.	<b>E</b>
<b>CO2</b>	Understand the hardship of society's citizens as well as biological challenges.	<b>U</b>
<b>CO3</b>	Illustrate the sangam people's way of existence.	<b>E</b>
<b>CO4</b>	Recognize the ancient Tamil monarchs' valiant character.	<b>R</b>
<b>CO5</b>	Comprehend Tamil literature to assess the quality and morals of local life.	<b>R</b>
<b>Core Course II :Nannul -Eluthathikaram</b>		<b>Subject Code: 22ACCBL2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the written Grammar.	<b>U</b>
<b>CO2</b>	Recognize to write without mistakes.	<b>R</b>
<b>CO3</b>	Illustrate with example the value of Uyireeru, Meiyeeru Conjunction rules.	<b>E</b>
<b>CO4</b>	Analyze vettrumai Urubukal.	<b>AN</b>
<b>CO5</b>	Find the locations of different objects.	<b>AP</b>
<b>Allied Course II: TAMIL ILLAKIYA VARALARU</b>		<b>Subject Code: 22AFACBL1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the History of Tamil Literature.	<b>U</b>
<b>CO2</b>	Recognize the era's in Tamil Literature.	<b>R</b>
<b>CO3</b>	Analyze the Kappiyangal in Kilkanaku.	<b>AN</b>
<b>CO4</b>	Discuss Spiritual improvement by Tamil poetess.	<b>E</b>
<b>CO5</b>	Grammatical book variation and its position can be known by the study.	<b>AP</b>

<b>Part II :Idaikkala Ilakiyamum Puthinamum</b>		<b>Subject code: 22LCT2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the concepts of religious literature.	<b>U</b>
<b>CO2</b>	Describe the common features between the religious literatures.	<b>E</b>
<b>CO3</b>	Analyze the morality to develop the society.	<b>AN</b>
<b>CO4</b>	Illustrate the concepts of different religious poems.	<b>E</b>
<b>CO5</b>	Describe the language family and world classical languages.	<b>E</b>
<b>Core Course III : Sitrilakkiyam</b>		<b>Subject code: 22ACCBL3</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand Literary Forms.	<b>U</b>
<b>CO2</b>	Recognize the history of Glothugacholan.	<b>R</b>
<b>CO3</b>	Illustrate the significance of Tamil Literature(Meenakshi Pillaitamil)	<b>E</b>
<b>CO4</b>	Analyze the religious concepts in sitrilakkiyam.	<b>AN</b>
<b>CO5</b>	Discuss the history of Adhiverarama pandithar.	<b>AP</b>
<b>Core Course IV: Nanool Sollathikaram</b>		<b>Subject Code: 22ACCBL4</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recall to use a noun grammatically	<b>R</b>
<b>CO2</b>	Significance of grammar and its application.	<b>U</b>
<b>CO3</b>	Recognize the syntax of conjunctions and adjectives.	<b>R</b>
<b>CO4</b>	Familiar with the different sorts of grammar categories.	<b>R</b>
<b>CO5</b>	Comprehend the different types of adjectives.	<b>E</b>
<b>Allied Course III :Tamillaga Varalurum Makkal Panpadum</b>		<b>Subject code : 22AFACBL2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the culture and economical status of the Tamil society.	<b>U</b>
<b>CO2</b>	Develop patriotism and passion to mother tongue.	<b>E</b>
<b>CO3</b>	Illustrate the contribution of Tamil writers.	<b>E</b>
<b>CO4</b>	Develop the thoughts of Excellency in Tamil.	<b>E</b>
<b>CO5</b>	Enrich to attend the competitive examinations.	<b>AP</b>
<b>Part III : Kappiyam Nadagamum</b>		<b>Subject Code:16LCT3</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the significance of Tamil Epics.	<b>U</b>
<b>CO2</b>	Illustrate the pride and specialties of Tamil drama.	<b>E</b>
<b>CO3</b>	Recognize the changes of Tamil society by drama.	<b>R</b>
<b>CO4</b>	Analyze the literary pleasure in literary epics.	<b>AN</b>
<b>CO5</b>	Develop the social responsibility through the stories of epics.	<b>E</b>

<b>Core Course V :Samaya Illakiyam</b>		<b>Subject code: 16LCCLT5</b>
<b>CONo.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recall the religious literature.	<b>U</b>
<b>CO2</b>	Recognize the common concepts among the religious literature.	<b>R</b>
<b>CO3</b>	Illustrate the thoughts for social development.	<b>E</b>
<b>CO4</b>	Analyze the various religious doctrines.	<b>AN</b>
<b>CO5</b>	Understand the concept all is one through religion.	<b>E</b>
<b>Core Course VI : Nampiagaporul, Puraporul Venpamalai</b>		<b>Subject code : 16LCCLT6</b>
<b>CONo.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recall the grammar in agaporul and puraporul.	<b>R</b>
<b>CO2</b>	Understand the virtual path of the ancient Tamilians.	<b>U</b>
<b>CO3</b>	Illustrate the changes take place through tradition.	<b>E</b>
<b>CO4</b>	Discuss the ancient Tamil culture.	<b>AP</b>
<b>CO5</b>	Analyze the two types of thinai in classical Tamil poem.	<b>AN</b>
<b>Non-Major Elective Course –I : Manitha Urimaigal</b>		<b>Subject code: 16ANMESW1</b>
<b>CONo.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the meaning of human rights and related aspects.	<b>U</b>
<b>CO2</b>	Define the universal declaration of human rights.	<b>AP</b>
<b>CO3</b>	Explain the violation of human rights.	<b>E</b>
<b>CO4</b>	Classify about the voluntary organization working at the international, national and state level.	<b>AP</b>
<b>CO5</b>	Discuss the Indian Constitutional guarantee of human rights.	<b>E</b>

<b>Part IV : Pandaiya Illakiyam</b>		<b>Subject Code:16LCT4</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the concepts of antique literature.	<b>U</b>
<b>CO2</b>	Recognize the internal and external songs in sangam literature.	<b>R</b>
<b>CO3</b>	Describe the legacy in Tamil Literature.	<b>E</b>
<b>CO4</b>	Analyze the paraphrase of poems.	<b>AN</b>
<b>CO5</b>	Develop to write historical events in Tamil Literature.	<b>E</b>

<b>Core Course VII: Kappiyam</b>		<b>Subject code: 16LCCLT7</b>
<b>CONo.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the significance of Tamil Epics.	<b>U</b>
<b>CO2</b>	Develop the social responsibility through the stories of epics.	<b>E</b>
<b>CO3</b>	Discuss the structure of various ethics.	<b>AP</b>
<b>CO4</b>	Analyze the literary pleasure in literary epics.	<b>AN</b>
<b>CO5</b>	Analyze the different literary divisions in kambaramayanam.	<b>AN</b>
<b>Core Course VIII: Tholkappiyam Eluthathikaram</b>		<b>Subject code: 16LCCLT8</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the special features of Tamil Literature.	<b>U</b>
<b>CO2</b>	Improve the writing skill.	<b>AP</b>
<b>CO3</b>	Recognize the phonetics of vallinam.	<b>R</b>
<b>CO4</b>	Develop speaking and writing skills in Tamil.	<b>E</b>
<b>CO5</b>	Analyze the concept of written grammar.	<b>AN</b>
<b>Allied Course IV : Padaippu Illakiyam</b>		<b>Subject code : 16LACL4</b>
<b>CONo.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the important elements in creative literature.	<b>U</b>
<b>CO2</b>	Recognize the uniqueness of the language in creative literature.	<b>R</b>
<b>CO3</b>	Develop to write short stories.	<b>E</b>
<b>CO4</b>	Inculcate the creative in literature.	<b>E</b>
<b>CO5</b>	Summarize essays on sociology and psychology education.	<b>AP</b>
<b>Non-Major Elective Course –II :Tharkala Samuga Pirachaikal Tattrum Thakangal</b>		<b>Subject code: 16ANMESW2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the concept of poverty and dependency.	<b>U</b>
<b>CO2</b>	Recognize role of government in preventing beggary.	<b>R</b>
<b>CO3</b>	Analyze the issue of alcoholism and drug addiction.	<b>AN</b>
<b>CO4</b>	Discuss the issues of juvenile delinquency.	<b>E</b>
<b>CO5</b>	Apply the remedial measures for alcoholism and drug addiction.	<b>AP</b>
<b>Skill Based Elective Course –I :Tamil Ithaliyal Varalaru</b>		<b>Subject code: 16RSBE8:1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the origin and development of Print media.	<b>U</b>
<b>CO2</b>	Recognize the types of news papers.	<b>R</b>
<b>CO3</b>	Illustrate the different types of magazine in Tamil.	<b>E</b>
<b>CO4</b>	Discuss the recreation in magazine.	<b>E</b>
<b>CO5</b>	Analyze the writings of great authors.	<b>AN</b>

<b>Core Course IX : Ara Illakiyam</b>		<b>Subject code: 16LCCL</b>
<b>CONo.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the significance in Tamil Ethic Literature.	<b>U</b>
<b>CO2</b>	Recognize the fundamentals of social livings through ethics.	<b>R</b>
<b>CO3</b>	Analyze the social political and economical background in ethic literature.	<b>AN</b>
<b>CO4</b>	Analyze the social responsibilities given in Tamil Literature.	<b>AN</b>
<b>CO5</b>	Describe the morals and ethics present in Aathichudi.	<b>E</b>
<b>Core Course X : Yapperugakalangerikai</b>		<b>Subject code: 16LCCLT10</b>
<b>CONo.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the main elements of poem.	<b>U</b>
<b>CO2</b>	Recognize the classification of poem.	<b>R</b>
<b>CO3</b>	Develop to write poems.	<b>E</b>
<b>CO4</b>	Illustrate the figure of speech in the poem.	<b>E</b>
<b>CO5</b>	Analyze the poems kalippa and venba.	<b>AN</b>
<b>Core Course XI: Thandialangaram</b>		<b>Subject code: 16LCCLT11</b>
<b>CONo</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Identify the elements of poetry.	<b>R</b>
<b>CO2</b>	Recognize the faction of the poem.	<b>R</b>
<b>CO3</b>	Develop to write poems using faction.	<b>E</b>
<b>CO4</b>	Analyze the figure of speeches in the poem.	<b>AN</b>
<b>CO5</b>	Discuss the figure of speech in various types of poems.	<b>AP</b>
<b>Core Course XII: Tholkappiyam Sollathathikaram</b>		<b>Subject code: 16LCCLT12</b>
<b>CONo</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the basic grammar in Tamil Language.	<b>U</b>
<b>CO2</b>	Develop writing skill of poem.	<b>E</b>
<b>CO3</b>	Establish the style of writing like poem.	<b>E</b>
<b>CO4</b>	Analyze the different type's verbs and tenses in the poem.	<b>AN</b>
<b>CO5</b>	Apply the nomenclature in free writing.	<b>AP</b>
<b>Major Based Elective Course I: Tamilin Semozhi Panpugal</b>		<b>Subject</b>
<b>code: 16LMBELT1</b>		
<b>CONo</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recognize the special features of Tamil as classical language.	<b>R</b>
<b>CO2</b>	Understand Tamil is one of the classical languages.	<b>U</b>
<b>CO3</b>	Describe the literary verb that brings Tamil as classical languages.	<b>E</b>
<b>CO4</b>	Illustrate different types of Dravidian languages in Tamil Nadu.	<b>E</b>
<b>CO5</b>	Analyze the significance of silappathikaram.	<b>AN</b>

<b>Skill Based Elective Course –II : Nalithal Uruvakkamum Vadivamaippum</b>		<b>Subject code: 16RSBE8:2</b>
<b>CONo</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the different types of news.	<b>U</b>
<b>CO2</b>	Define articles magazines and caption.	<b>R</b>
<b>CO3</b>	Describe the different modes of collecting news.	<b>E</b>
<b>CO4</b>	Discuss the main ideas used while editing.	<b>AP</b>
<b>CO5</b>	Analyze the process of editing and sub editing.	<b>AN</b>
<b>Skill Based Elective Course –III: Illakiya Ithalkal</b>		<b>Subject code: 16RSBE8:3</b>
<b>CONo</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recognize the different types of magazines.	<b>R</b>
<b>CO2</b>	Understand the concepts in medieval literary magazines.	<b>U</b>
<b>CO3</b>	Identify the role of magazines in present era.	<b>AP</b>
<b>CO4</b>	Develop writing skills in magazines.	<b>E</b>
<b>CO5</b>	Differentiate the features of fiction and non fiction.	<b>AN</b>
<b>Core Course XIII: Thirukkural</b>		<b>Subject code: 16LCCLT14</b>
<b>CONo</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recall the history of Thiruvalluvar.	<b>R</b>
<b>CO2</b>	Recognize the ethics present in Thirukkural.	<b>R</b>
<b>CO3</b>	Illustrate aesthetic and the literary content in Thirukkural.	<b>E</b>
<b>CO4</b>	Analyze the attributes of Thirukkural.	<b>AN</b>
<b>CO5</b>	Apply Thirukkural in speaking and writing skills.	<b>AP</b>
<b>Core Course XIV: Pandaiya Illakiyam</b>		<b>Subject code: 16LCCLT14</b>
<b>CONo</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the special features of literary works.	<b>U</b>
<b>CO2</b>	Recognize the protocol in traditional literary works.	<b>R</b>
<b>CO3</b>	Analyze the duty of classical literature.	<b>AN</b>
<b>CO4</b>	Describe the life ethics and the historical events in literature.	<b>E</b>
<b>CO5</b>	Develop writing skills.	<b>E</b>
<b>Core Course XV: Tholkappiyam Porulathikaram</b>		<b>Subject code: 16LCCLT15 Ilampuranam</b>
<b>CONo</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the poetic grammar in Tamil.	<b>U</b>
<b>CO2</b>	Describe the internal and external structures in literature.	<b>E</b>
<b>CO3</b>	Develop writing skills in poem.	<b>E</b>
<b>CO4</b>	Discuss psychology in literature.	<b>AP</b>
<b>CO5</b>	Apply metaphor and alliteration in writing poem.	<b>AP</b>
<b>Major Based Elective Course II : Kalvettiyal</b>		<b>Subject code: 16LMBELT2</b>
<b>CONo</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the antiques of Tamil language.	<b>U</b>
<b>CO2</b>	Recognize the origin of Epigraphy.	<b>R</b>
<b>CO3</b>	Distinguish between palm try and epigraphy.	<b>AP</b>
<b>CO4</b>	Describe archaeology taken place in Nagapattinam and Thondi.	<b>E</b>
<b>CO5</b>	Analyze the present archaeology in Tamil Nadu.	<b>AN</b>



<b>Major Based Elective Course III : Nadagaviyal</b>		<b>Subject code: 16LMBELT3</b>
<b>CONo</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the dramatic literature.	<b>U</b>
<b>CO2</b>	Describe the origin and development of dramatic literature.	<b>E</b>
<b>CO3</b>	Illustrate the pride and specialties of Tamil drama.	<b>E</b>
<b>CO4</b>	Recognize the changes of Tamil society by drama.	<b>R</b>
<b>CO5</b>	Develop writing skills in drama.	<b>AP</b>
<b>Major Based Elective Course III: Tholkappiyam Eluthathikaram</b>		<b>Subject code: 16LCCLT8</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the grammatical structure of Tholkappiyam.	<b>U</b>
<b>CO2</b>	Comprehend to assess the alphabets.	<b>R</b>
<b>CO3</b>	Recall the history of writing.	<b>U</b>
<b>CO4</b>	Illustrate to improve listening.	<b>E</b>
<b>CO5</b>	Recognize to coin new word.	<b>R</b>

**DEPARTMENT OF ENGLISH**  
**Programme: B.A. English**

**PROGRAMME OUTCOMES (PO)**

<b>PO No.</b>	<i>Programme outcomes</i> <i>Upon completion of the B.A., Degree Programme, the graduate will be able to</i>
<b>PO1</b>	Apply critical and theoretical methods to read and study the literary and cultural materials from various genres.
<b>PO2</b>	Define the critical concepts that emerge in literary and cultural works and explain how to interpret and use them.
<b>PO3</b>	Write analytical essays, research papers, reflective writing, and critical evaluations of secondary materials.
<b>PO4</b>	Gather, interpret, assess, and synthesize data ethically from a range of textual and electronic sources.
<b>PO5</b>	Communicate and analyze human experiences via literary representation in light of historical and disciplinary settings.
<b>PO6</b>	Prepare to take part in a variety of competitive tests and to enroll in a postgraduate programme of their choice.

**PROGRAMME SPECIFIC OUTCOMES (PSO)**

<b>PSO No.</b>	<i>Programme Specific Outcomes Upon completion of these courses the graduate will be able to</i>
<b>PSO1</b>	Analysis the literary texts, with a critical insight.
<b>PSO2</b>	Present the learned ideas.
<b>PSO3</b>	Understand the role of a literature student in shaping the course of the society.
<b>PSO4</b>	Acquire the ability in understanding the lifelong learning.
<b>PSO5</b>	Analyse the impact of literature on the society.
<b>PSO6</b>	Produce effective projects.

**COURSE OUTCOMES (CO)**

<b>Part II: Prose for Effective Communication</b>		<b>Subject Code:22ELCE1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>CognitiveLevel</b>
<b>CO1</b>	Understand and appreciate the literary works.	<b>U</b>
<b>CO2</b>	Enhance LSRW skills	<b>R</b>
<b>CO3</b>	Appreciate the ethical points of view in the texts.	<b>AP</b>
<b>CO4</b>	Understand the process of communicating and interpreting human experiences through literary representation.	<b>U</b>
<b>CO5</b>	Evaluate and synthesize information from a variety of	<b>AN</b>
<b>Core Course I:Prose</b>		<b>Subject Code :22ACCEN1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>CognitiveLevel</b>
<b>CO1</b>	Develop knowledge about different genres of prose.	<b>AP</b>
<b>CO2</b>	Describe the development of prose through ages.	<b>U</b>
<b>CO3</b>	Explain the early English Literature and transition.	<b>E</b>
<b>CO4</b>	Recognize the language alterations that occurred during this time.	<b>R</b>
<b>CO5</b>	Illustrate the socio-cultural and historical development of this period.	<b>E</b>
<b>Core Course II: World Short Stories</b>		<b>Subject Code: 22ACCEN2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>CognitiveLevel</b>
<b>CO1</b>	Understand the meanings of difficult words / phrases.	<b>U</b>
<b>CO2</b>	Classify the different types of characters in real life situations.	<b>U</b>
<b>CO3</b>	Analyze the style of writing and examine the story, plot and themes.	<b>AN</b>
<b>CO4</b>	Explain and apply the values and understand that virtues always excel over vices.	<b>E</b>
<b>CO5</b>	Discover the inner talent to be short story writers.	<b>R</b>
<b>Allied Course I: Social History of England</b>		<b>Subject Code: 22AFACEN1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>CognitiveLevel</b>
<b>CO1</b>	Acquire knowledge of the course of British social history.	<b>R</b>
<b>CO2</b>	Realize the major trends which have shaped English society	<b>U</b>
<b>CO3</b>	Identify the key themes which encapsulate each period.	<b>AN</b>
<b>CO4</b>	Understand the impact of historical events on writers of each age.	<b>U</b>
<b>CO5</b>	Explore the contemporary social history of England.	<b>AN</b>

<b>Non Major: Value Education</b>		<b>Subject Code: 18UGVED</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Define life's philosophy and societal ideals.	<b>R</b>
<b>CO2</b>	Understand the importance of human rights and organization	<b>U</b>
<b>CO3</b>	Describe the RTI Act of 2005 and the Consumer Protection Act of 1986.	<b>E</b>
<b>CO4</b>	Practice of yoga for health.	<b>AP</b>
<b>CO5</b>	Illustrate the function of the state public service commission	<b>E</b>
<b>Part II: Poetry for Effective Communicatio</b>		<b>Subject Code: 22ELCE2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Appreciate the essential elements of poetry.	<b>AP</b>
<b>CO2</b>	Recognize poetry from a variety of cultures, languages and historic periods.	<b>R</b>
<b>CO3</b>	Identify the tone and theme, sound devices metre, rhythm, rhyme scheme.	<b>AP</b>
<b>CO4</b>	Analyze the underlying meanings of the poem by using the elements of poetry.	<b>AN</b>
<b>CO5</b>	Apply different verb forms efficiently in day-to-day communication.	<b>AP</b>
<b>Core Course III: Poetry – I</b>		<b>Subject Code: 22ACCEN3</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Identify the essential elements of poetry.	<b>AP</b>
<b>CO2</b>	Appreciate the tone and theme, sound devices metre, rhythm, rhyme scheme.	<b>AP</b>
<b>CO3</b>	Explain the figures of speech used in the poems.	<b>E</b>
<b>CO4</b>	Understand the different types of poetry.	<b>U</b>
<b>CO5</b>	Analyze myths and biblical references of the poem.	<b>AN</b>
<b>Core Course IV: Fiction</b>		<b>Subject Code: 22ACCEN4</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand fiction as a literary genre.	<b>U</b>
<b>CO2</b>	Develop the various methods of storytelling.	<b>E</b>
<b>CO3</b>	Transform fiction into modern screen play.	<b>AP</b>
<b>CO4</b>	Develop a grip over skimming and scanning methods of reading.	<b>R</b>
<b>CO5</b>	Appreciate theme, characterization and setting of the novel.	<b>AP</b>
<b>Allied Course II : Literary Forms</b>		<b>Subject Code: 22AFACEN2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Identify a wide variety of forms, styles and genres in English literature.	<b>AP</b>
<b>CO2</b>	Understand the significance of Literary forms in determining the meaning of texts.	<b>U</b>
<b>CO3</b>	Recognize the basic skills required for the reading and understanding of literature.	<b>R</b>
<b>CO4</b>	Acquire the ability to appreciate literature through analytical and responsive reading.	<b>R</b>
<b>CO5</b>	Illustrate present trends in literary writings.	<b>E</b>

<b>Non Major:Environmental Studies</b>		<b>Subject Code: 19UGCES</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recognize the multidisciplinary character of environmental and natural Resource studies.	<b>AP</b>
<b>CO2</b>	Define the ecology and biodiversity.	<b>U</b>
<b>CO3</b>	Describe the environmental pollution's causes, impacts and control techniques.	<b>E</b>
<b>CO4</b>	Understand Social and Environmental Issues.	<b>AN</b>
<b>CO5</b>	Analyze the Human Population and the Environment.	<b>R</b>
<b>Part III : Drama for Effective Communication</b>		<b>Subject Code:22ELCE3</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand dramatic techniques used in the plays to explore socio-cultural ideas and issues.	<b>U</b>
<b>CO2</b>	Identify and discuss the theoretical elements of the plays.	<b>AN</b>
<b>CO3</b>	Develop an appreciation and respect for the characterization in the plays.	<b>E</b>
<b>CO4</b>	Appreciate the structure and organization of one-act plays.	<b>AP</b>
<b>CO5</b>	Analyze critically the theme, plot and cultural aspects prevalent in the play.	<b>AN</b>
<b>Core Course V: Poetry – II</b>		<b>Subject Code: 16ACCEN5</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Classify the salient features of various types of poetry.	<b>AN</b>
<b>CO2</b>	Recognize the rhythms, metrics and other musical aspects of poetry	<b>R</b>
<b>CO3</b>	Apply the principles of literary criticism to the analysis of poetry.	<b>AP</b>
<b>CO4</b>	Determine of language and its connotations and denotations	<b>AN</b>
<b>CO5</b>	Develop their own creativity Enhance their writing skills.	<b>E</b>
<b>Core Course VI: One - Act plays</b>		<b>Subject Code:16ACCEN6</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recall the salient features of one - act plays.	<b>R</b>
<b>CO2</b>	Understand and appreciate various cultures and varieties of presentation in the texts.	<b>U</b>
<b>CO3</b>	Point out the main ideas of the play.	<b>R</b>
<b>CO4</b>	Recognize the sociological and psychological dimensions of characterizations.	<b>R</b>
<b>CO5</b>	Analyze, and interpret texts and perform both in written and orally.	<b>AN</b>
<b>Allied Course III :History of English Literature -I</b>		<b>Subject Code: 16AACEN3</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Explain the background events such l as social, political and literary events.	<b>E</b>
<b>CO2</b>	Describe the literary history of the texts.	<b>R</b>
<b>CO3</b>	Understand the rise and fall of literary movements.	<b>U</b>

<b>CO4</b>	Interpret the contemporary writers in the Age of Milton.	<b>R</b>
<b>CO5</b>	Correlate the John Dryden's works with contemporary writer works.	<b>AN</b>

**Non Major Elective-I: Working Principles Of Internet Subject Code: 16SNMECS1**

<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Define Internet and Discuss about Internet's underlying Architecture.	<b>R</b>
<b>CO2</b>	Discuss about connecting and communicating on the internet.	<b>Ap</b>
<b>CO3</b>	Describe World Wide Web Works and List out the common Internet Tools.	<b>R</b>
<b>CO4</b>	Summarize the Multimedia on Internet.	<b>U</b>
<b>CO5</b>	Explain about Safeguarding the Internet.	<b>U</b>

**Part IV: Short Stories of Effective Communication Subject Code:22ELCE4**

<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Identify and apply techniques of literary analysis and criticism.	<b>AN</b>
<b>CO2</b>	Describe author bibliography and socio-historic context of each short story.	<b>E</b>
<b>CO3</b>	Discuss short story content, structure and characterization in depth.	<b>E</b>
<b>CO4</b>	Analyze a variety of short fiction at college level.	<b>AN</b>
<b>CO5</b>	Examine the various cultural and moral values associated with short stories.	<b>AN</b>

**Core Course VII: Drama Subject Code: 16ACCEN7**

<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the features of tragedy and interpret the essay.	<b>U</b>
<b>CO2</b>	Identify the features of comedy and predict the theme of the play.	<b>AP</b>
<b>CO3</b>	Distinguish the importance of humors and anti-sentiments in the play.	<b>AN</b>
<b>CO4</b>	Demonstrate the characteristics of the play Pygmalion.	<b>E</b>
<b>CO5</b>	Relate the features of tragedy, comedy drama of ideas and absurd play.	<b>AP</b>

**Core Course VIII: Introduction to Language and Linguistics Subject Code:16ACCEN8**

<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recall the history of English language and its concepts.	<b>R</b>
<b>CO2</b>	Describe the classification of speech sounds.	<b>E</b>
<b>CO3</b>	Develop the forms of morphology.	<b>E</b>
<b>CO4</b>	Discover the scientific system of the language.	<b>AP</b>
<b>CO5</b>	Find out the similarity in language, society and culture.	<b>AN</b>

<b>Allied Course IV: History of English Literature-II</b>		<b>Subject Code: 16AACEN4</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Recite the historical background of the literary text in the Age of Pope.	U
CO2	Describe biography of every important writer	E
CO3	Analyze every author best works.	AN
CO4	Correlate the social and critical events in the age of Tennyson.	AP
CO5	Analyze the present age literary works and styles.	AN
<b>Non Major Elective-II: Fundamental Of Information Technology</b>		<b>Subject Code: 16SNMECS2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Describe Generation and Classification of Computers.	R
CO2	List out Input and Output Devices.	R
CO3	Discuss about Programming Languages.	R
CO4	Classify the Computers Networks.	U
CO5	Analyze the Computer Security and Computer Circuses.	An
<b>Skill Based Elective 1 : Journalism and Mass Media</b>		<b>Subject Code: 16RSBE6:1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Define the concept of journalism.	R
CO2	Explain the transmission and receiving technologies.	E
CO3	Conclude television as a medium of mass communication.	E
CO4	Establish the growth of films and the process of cinema productions.	R
CO5	Estimate the potential of internet.	AN
<b>Core Course IX: Shakespeare</b>		<b>Subject Code: 16ACCEN9</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Identify the unique features of the play.	AN
CO2	Estimate the speech which highlights Shakespeare's work.	E
CO3	Demonstrate affection is the key character of life.	U
CO4	Explain desire and love is the keyword of the play.	E
CO5	Understand the characterization, dramatic and poetic techniques in Shakespearean plays.	U
<b>Core Course X: Principles of Literary Criticism</b>		<b>Subject Code: 16ACCEN10</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Define the terms literary theory and literary criticism.	R
CO2	Assess the classical criticism of different authors.	AN
CO3	Classify the various theories in criticism.	AN
CO4	Apply the various approaches in literary theory.	AP
CO5	Recognize the five approaches to literature.	R

<b>Core Course XI :American Literature</b>		<b>Subject Code:16ACCEN11</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Discuss the significance aspects in various genres.	<b>E</b>
<b>CO2</b>	Identify the figure of speech in the given poems.	<b>AN</b>
<b>CO3</b>	Illustrate the ideas of the great author's prose works.	<b>E</b>
<b>CO4</b>	Differentiate the minor and the major characters in drama.	<b>AN</b>
<b>CO5</b>	Debate Be true, Be true is the success of life.	<b>AP</b>
<b>Core Course XII: Indian Culture and Literature</b>		<b>Subject Code:16ACCEN12</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the rich literary heritage of India.	<b>U</b>
<b>CO2</b>	Correlate unity among the diverse language and literature of India.	<b>AN</b>
<b>CO3</b>	Recognition the important contribution of India to world literature.	<b>R</b>
<b>CO4</b>	Deduce truth and faith are the theme of the play.	<b>AN</b>
<b>CO5</b>	Summarize the social and political issues taken plays in the society.	<b>E</b>
<b>Major-Based Elective-I :Translation: Theory and Practice</b>		<b>Subject Code:16AMBEEN1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	State the theory of translation and types of translation.	<b>U</b>
<b>CO2</b>	Describe history of translation theory such as roman and bible translations.	<b>E</b>
<b>CO3</b>	Estimate the problems of literary translation wild translating the poetry, prose and drama.	<b>AN</b>
<b>CO4</b>	Develop to translate Thirukkural.	<b>E</b>
<b>CO5</b>	Contribute translate proverbs and prose from English to Tamil and vice versa.	<b>U</b>
<b>Skill-Based Elective - II: Reporting and Editing</b>		<b>Subject Code:16RSBE6:2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Define the principles if reporting and the responsibilities of writing news.	<b>R</b>
<b>CO2</b>	Discover the reporting techniques and the qualities of a reporter.	<b>E</b>
<b>CO3</b>	Discuss the various types of reporting.	<b>E</b>
<b>CO4</b>	Compare the functions and the qualifications of a sub-editor and chief sub-editor.	<b>AN</b>
<b>CO5</b>	Summarize the nature and need for editing.	<b>E</b>
<b>Skill-Based Elective- III: Public Relations</b>		<b>Subject Code:16RSBE6:3</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	View the scope of publ8ic relations.	<b>U</b>
<b>CO2</b>	Examine the nine organization of P.R department.	<b>AN</b>
<b>CO3</b>	Classify the different types of relation.	<b>AP</b>
<b>CO4</b>	Collect and compute the PR process.	<b>R</b>
<b>CO5</b>	Estimate the process of planning and communicative.	<b>AN</b>

<b>Soft Skills Development</b>		<b>Subject Code: RUGSDC</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand to develop positive attitude.	<b>U</b>
<b>CO2</b>	Develop inter personal skills.	<b>E</b>
<b>CO3</b>	Develop communication skills.	<b>E</b>
<b>CO4</b>	Describe career planning.	<b>E</b>
<b>CO5</b>	Practice group discussion.	<b>R</b>
<b>Core Course XIII: Indian Writing in English</b>		<b>Subject Code:16ACCEN13</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the rich literary tradition in Indian Writing in English.	<b>U</b>
<b>CO2</b>	Chart out the metaphors and the similes present in the poem Nissim Ezekiel And A.K. Ramanujan.	<b>AN</b>
<b>CO3</b>	Discover the philosophical ideas present in the prose.	<b>AN</b>
<b>CO4</b>	Dramatize the play Nagamandala.	<b>E</b>
<b>CO5</b>	Deduce the social conventions present in the fiction Coolie	<b>AN</b>
<b>Core Course XIV: Common Wealth Literature</b>		<b>Subject Code:16ACCEN14</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Paraphrase the poem The Solitary Woodsman.	<b>R</b>
<b>CO2</b>	Examine the alliteration.	<b>AN</b>
<b>CO3</b>	Appreciate all the literary works under Commonwealth Literature as a part of English Literature.	<b>AP</b>
<b>CO4</b>	Understand that ‘Commonwealth Writing’ has now acquired a worldwide relevance, significance and resonance.	<b>U</b>
<b>CO5</b>	Appreciate the contribution of translation studies to Commonwealth Literature.	<b>AP</b>
<b>Core Course XV: English Language Teaching</b>		<b>Subject Code:16ACCEN15</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Identify the issues involved in teaching of English.	<b>AP</b>
<b>CO2</b>	Define various approaches and methods.	<b>U</b>
<b>CO3</b>	Develop the LSRW skills in prose, poetry and drama.	<b>E</b>
<b>CO4</b>	Classify the types of tests.	<b>AN</b>
<b>CO5</b>	Understand the essential components and concepts of language teaching.	<b>U</b>
<b>Major-Based Elective-II: Journalism</b>		<b>Subject Code:16AMBEEN2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the basics of journalism.	<b>U</b>
<b>CO2</b>	Describe the elements and source of news.	<b>E</b>
<b>CO3</b>	Estimate the qualities of reporters.	<b>AN</b>
<b>CO4</b>	Discuss on news editor and anatomy of editing.	<b>E</b>
<b>CO5</b>	Reproduce news stories and writing leads and deadlines.	<b>R</b>



**Major-Based Elective-III: English for Competitive Exam**      **Subject Code:16AMBEEN3**

CO No.	Course Outcome	Cognitive Level
CO1	Define the terms articles, prepositions and tenses.	U
CO2	Differentiate homophones – homonyms, phrases and idioms.	AP
CO3	Reduce the mistakes in the given sentence.	AN
CO4	Develop in writing formal and informal letters.	E
CO5	Extend the proverbs.	E

**Non Major:Gender Studies**      **Subject Code: UGCES**

CO No.	Course Outcome	Cognitive Level
CO1	Understand each others strength and weakness.	U
CO2	Develop sensitivity towards both genders.	E
CO3	Promote attitudinal change towards a gender balanced ambience and women empowerment.	E
CO4	Describe national policy for empowerment of women.	E
CO5	Apply Eve Teasing Prevention Act at work places.	AP

**DEPARTMENT OF ENGLISH**  
**PROGRAMME: M.A., Englis**

**PROGRAMME OUTCOMES (PO)**

PO No.	Programme outcomes
	<i>Upon completion of the M.A., Degree Programme, the graduate will be able to</i>
PO1	Become well-versed in the humanities, literature, and social sciences, so they are empathetic and thoughtful when it comes to solving problems that concern humanity.
PO2	Analyze literary works and linguistic issues by applying various theoretical approaches.
PO3	Write a variety of competitive tests and to enroll in any postgraduate or research programme of their choice.
PO4	Develop a life-long passion for the English language and literature.
PO5	Develop the skills of practical criticism.
PO6	Develop the ability to write research works.

## PROGRAMME SPECIFIC OUTCOMES (PSO)

PSO No.	Programme Specific Outcomes <i>Upon completion of these courses the graduate will be able to</i>
PSO1	Acquire a sound knowledge of the periods of English Literature and writers during the period.
PSO2	Identify the features of each period in the given text.
PSO3	Develop good communication skills.
PSO4	Make use of the experience of the morals and values learnt from literature in transforming society.
PSO5	Select new areas of research.
PSO6	Recall concepts and texts to clear competitive examinations.

## COURSE OUTCOMES (CO)

Core Course I: Language and Linguistics		Subject Code:P22ENCC11	
CO No.	Course Outcome	PSO	Cognitive Level
CO1	Understand language structures and functioning of the language.		U
CO2	Describe the structure of the speech organs and the ir function and the Basic methods of articulation.		R
CO3	Classify the words, based on morphological principles.		An
CO4	Develop the branches of linguistics.		Ap
CO5	Distinguish the relationship between the different types of discourse.		An
Core Course II: Modern Literature – I (400-1660)		Subject Code: P22ENCC12	
CO No.	Course Outcome	PSO	Cognitive Level
CO1	Recall the major concerns, styles and perspectives of poets.		R
CO2	Discuss the historical context encompassing the literary works including the political, social, religious and artistic milieu of the early British authors.		U
CO3	Assess the styles and concerns of the writers in creative writing.		Ap
CO4	Estimate the various characteristics in the plays.		U
CO5	Assess the theme given in the novels.		Ap

<b>Core Course III: Modern Literature –II (1660-1798)</b>		<b>Subject Code:P22ENCC13</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the changing trends in English poetry.		<b>U</b>
<b>CO2</b>	Describe the writers' ideas and treatment of theme in the poems.		<b>U</b>
<b>CO3</b>	Recognize the meanings and effects of human thoughts.		<b>An</b>
<b>CO4</b>	Contrast the salient features of anti-sentimental comedy and restoration comedy.		<b>An</b>
<b>CO5</b>	Discuss the emergence of the English novel during the Age of Transition.		<b>U</b>
<b>Core Choice Course-I: Introduction to Comparative Literature</b>		<b>Subject Code: P22ENCC1A</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Explain the evolution of comparative literature.		<b>U</b>
<b>CO2</b>	Understand the final coins of Thematology, Reception Study & Study of Genres.		<b>Ap</b>
<b>CO3</b>	Realize the methodology employed in influence and parallel studies.		<b>An</b>
<b>CO4</b>	Describe the salient features of French and American schools of comparative literature.		<b>U</b>
<b>CO5</b>	Comment on the relationship literature has with psychology and various arts.		<b>An</b>
<b>Elective Course I: Asian Literature in English</b>		<b>Subject Code: P22ENE1A</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Assess the Asian writers' proficiency in English.		<b>Ap</b>
<b>CO2</b>	Discover the various Asian cultures through the text.		<b>Ap</b>
<b>CO3</b>	Discuss the main theme of the given prose.		<b>U</b>
<b>CO4</b>	Predict the ideas of the given drama.		<b>U</b>
<b>CO5</b>	Summarize the essays in the novels		<b>U</b>
<b>Value Added Course –I :Soft Skills through Literature</b>		<b>Subject Code: P22ENVAC1</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the skills through the literary text.		<b>U</b>
<b>CO2</b>	Create awareness on career enhancement and develop creative skills.		<b>E</b>
<b>CO3</b>	Strengthen the potentiality to emerge as a team leader.		<b>R</b>
<b>CO4</b>	Develop employment skills and enhance communication skills.		<b>E</b>
<b>CO5</b>	Develop effective presentation and analytical skills.		<b>E</b>

<b>Core Course IV: Modern Literature–III(1798-1832)</b>		<b>Subject Code: P22ENCC21</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Identify the characteristics of romantic poetry.		<b>R</b>
<b>CO2</b>	Summarize the ideas and theme of the poem.		<b>U</b>
<b>CO3</b>	Compute the unique qualities of the essays.		<b>Ap</b>
<b>CO4</b>	Criticize the Romantic period of drama.		<b>An</b>
<b>CO5</b>	Estimate the use of novels of British writers.		<b>U</b>
<b>Core Course V: Modern Literature–IV(1832-1945)</b>		<b>Subject Code: P22ENCC22</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Identify the spirit of Victorian England and its influence on poetry.		<b>U</b>
<b>CO2</b>	Distinguish the revolution brought about through aesthetic movements and Anti-Victorian movements in poetry.		<b>An</b>
<b>CO3</b>	Reproduce the ideas of given prose.		<b>R</b>
<b>CO4</b>	Examine the various aspects of given dramas.		<b>An</b>
<b>CO5</b>	Demonstrate the characterization of the novels.		<b>Ap</b>
<b>Core Course VI: Shakespeare</b>		<b>Subject Code: P22ENCC23</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Identify the social and psychological skills in the play.		<b>R</b>
<b>CO2</b>	Participate as the main character of the play.		<b>Ap</b>
<b>CO3</b>	View the linguistics and existential skills in the play.		<b>R</b>
<b>CO4</b>	Predict the theme of the play.		<b>Ap</b>
<b>CO5</b>	Classify the dramatic techniques handled in the plays.		<b>An</b>
<b>Core Choice Course-II: English Language Teaching</b>		<b>Subject Code: P22ENCC2A</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Comment on the contemporary theories of second language acquisition.		<b>U</b>
<b>CO2</b>	Illustrate the four different skills of language acquisition.		<b>U</b>
<b>CO3</b>	Describe the role of mother tongue in teaching English in India.		<b>An</b>
<b>CO4</b>	Discuss the role of ICT in language teaching.		<b>Ap</b>
<b>CO5</b>	Describe the various methods of English language teaching.		<b>An</b>

<b>Elective Course II: Research Methodology</b>		<b>Subject Code: P22ENE2A</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Define research.		<b>U</b>
<b>CO2</b>	Differentiate the types of research.		<b>U</b>
<b>CO3</b>	Describe the use of library in academic research.		<b>U</b>
<b>CO4</b>	Comment on the different types of note making.		<b>An</b>
<b>CO5</b>	Elucidate the mechanics of thesis writing.		<b>Ap</b>
<b>Non Major Elective Course-I: English for Effective Communication -I</b>			
<b>Subject Code: P22ENNME1</b>			
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Acquire the four language skills.		<b>U</b>
<b>CO2</b>	Understand the reading and comprehensive skills and analyze the comprehension passages.		<b>U</b>
<b>CO3</b>	Integrate the language skills and use them effectively in day-to-day communication.		<b>R</b>
<b>CO4</b>	Enhance the communication skills to improve the career prospects.		<b>E</b>
<b>CO5</b>	Incorporate the writing skills in drafting letters and creating their own resume.		<b>Ap</b>
<b>Core Course IX: American Literature</b>		<b>Subject Code: P16EN31</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Describe the significance of various genres.		<b>Ap</b>
<b>CO2</b>	Focus on the figure of speech in the given poems.		<b>An</b>
<b>CO3</b>	Explain the ideas in the great author's prose works.		<b>U</b>
<b>CO4</b>	Differentiate between the minor and the major characters in a play.		<b>An</b>
<b>CO5</b>	Establish the richness of American literature through representative works by great novelists.		<b>Ap</b>
<b>Core Course X: Theory of Comparative Literature and Classics in Translation</b>		<b>Subject Code: P16EN32</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Assess the Theories in Comparative Literature.		<b>Ap</b>
<b>CO2</b>	Compare the works on the basis of forms.		<b>An</b>
<b>CO3</b>	Differentiate Literature and Society, Literature and Religion.		<b>An</b>
<b>CO4</b>	Make Sense of a few representatives' classics in translation.		<b>U</b>
<b>CO5</b>	Produce the Thematology of the German novelists.		<b>Ap</b>

<b>Core Course XI: Literary Theory</b>		<b>Subject Code: P16EN33</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Identify the literary theory from the beginning of the twentieth century to the present day.		<b>R</b>
<b>CO2</b>	Analysis of literary texts.		<b>An</b>
<b>CO3</b>	Discuss the various literary criticisms.		<b>U</b>
<b>CO4</b>	Distinguish between Feminism and Neo-Feminism, Colonialism and Post-Colonialism.		<b>An</b>
<b>CO5</b>	Estimate the wide range of theoretical perspectives on literary texts.		<b>U</b>
<b>Core Course XII: Research Methodology</b>		<b>Subject Code: P16EN34</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Enumerate the philosophy of research.		<b>R</b>
<b>CO2</b>	Describe the applications of different research sources.		<b>U</b>
<b>CO3</b>	Understand the format of research.		<b>U</b>
<b>CO4</b>	Apply the various mechanics of writing.		<b>Ap</b>
<b>CO5</b>	Describe the various forms of documentation.		<b>Ap</b>
<b>Elective Course III: Asian Literature in English</b>		<b>Subject Code: P16ENE3</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>cognitive Level</b>
<b>CO1</b>	Assess the Asian writers' proficiency in English.		<b>Ap</b>
<b>CO2</b>	Discover the various Asian cultures through the text.		<b>Ap</b>
<b>CO3</b>	Discuss the main theme of the given prose.		<b>U</b>
<b>CO4</b>	Predict the ideas of the given drama.		<b>U</b>
<b>CO5</b>	Summarize the essays in the novels.		<b>U</b>
<b>Core Course XIII: New literature in English</b>		<b>Subject Code: P16EN41</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Focus on the writers of New Literature.		<b>An</b>
<b>CO2</b>	Understand the literary devices which enhance the beauty of the poem.		<b>U</b>
<b>CO3</b>	Estimate the value of diasporic writers.		<b>U</b>
<b>CO4</b>	Interpret the character sketch of the diasporic drama.		<b>U</b>
<b>CO5</b>	Determine the various cultures of new literature.		<b>Ap</b>
<b>Core Course XIV: Translation: Theory and Practice</b>		<b>Subject Code: P16EN42</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recall the history and theories of translation.		<b>R</b>
<b>CO2</b>	Classify the various types of translation.		<b>U</b>
<b>CO3</b>	Understand the techniques involved in translation.		<b>U</b>
<b>CO4</b>	Trace out the problems in Translation and Untranslatability.		<b>U</b>

<b>CO5</b>	Develop practice in translation, especially in Tamil and English.		<b>Ap</b>
<b>Elective Course IV: Single-Author Study – Rabindranath Tagore</b>		<b>Subject Code: P16ENE4</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Review the study of Tagore’s works.		<b>U</b>
<b>CO2</b>	Identify the narrative techniques of Tagore’s prose works.		<b>R</b>
<b>CO3</b>	Describe the aspects of Indian civilization in Tagore’s drama		<b>U</b>
<b>CO4</b>	Assess Indian culture with reference to Tagore.		<b>Ap</b>
<b>CO5</b>	Point out the theme of the novel by Tagore.		<b>An</b>
<b>Elective Course V: English Literature for UGC Examinations</b>		<b>Subject Code: P16ENE5</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recall a wide range of knowledge in literature.		<b>R</b>
<b>CO2</b>	Understand the genres of romantic period to Victorian period.		<b>U</b>
<b>CO3</b>	Focus on the revolution taken place in modern and contemporary period.		<b>An</b>
<b>CO4</b>	Construct the central ideas of American literature and new literature in English.		<b>Ap</b>
<b>CO5</b>	Discuss the theory of literary criticism in classicism, new criticism and contemporary theory.		<b>U</b>

## DEPARTMENT OF MATHEMATICS

Programme: B.Sc., Mathematics

### PROGRAMME OUTCOMES (PO)

<b>PO No.</b>	<i>Programme outcomes</i> <i>Upon completion of the B.Sc., Degree Programme, the graduate will be able to</i>
<b>PO1</b>	Develop a life-long passion in the English language.
<b>PO2</b>	Exhibit the knowledge of classical and abstract concepts of Mathematics and apply them in various fields
<b>PO3</b>	Evaluate an issue, identify and describe the computational needs that may be needed to solve it.
<b>PO4</b>	Communicate mathematical thoughts with appropriate justifications and mathematical logic.
<b>PO5</b>	Explain the use of mathematical and computational modeling in real decision making.
<b>PO6</b>	Conduct advanced study and research in pure and applied mathematics.

**PROGRAMME SPECIFIC OUTCOMES (PSO)**

PSO No.	<i>Programme Specific Outcomes</i> <i>Upon completion of these courses the graduate will be able to</i>
<b>PSO1</b>	Explicate the concepts of pure and applied Mathematics
<b>PSO2</b>	Understand the mathematical principles in multidisciplinary environments.
<b>PSO3</b>	Demonstrate a computational ability in solving a wide array of mathematical problems.
<b>PSO4</b>	Utilize mathematical skills of the logical and scientific approach.
<b>PSO5</b>	Develop an in-depth knowledge in Mathematics appreciating the connections between theory and its applications.
<b>PSO6</b>	Identify the applications of Mathematics in other disciplines and society.

**COURSE OUTCOMES (CO)**

<b>Core Course I: DIFFERENTIAL CALCULUS AND TRIGONOMETRY</b>		<b>Subject Code: 22SCCMM1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand Leibnitz's theorem and its applications.	<b>U</b>
<b>CO2</b>	Analyze Radius of curvature in Cartesian and in polar coordinates.	<b>AN</b>
<b>CO3</b>	Expansions of $\sin(x)$ , $\cos(x)$ and $\tan(x)$ in powers of $x$ .	<b>E</b>
<b>CO4</b>	Relation between hyperbolic and circular functions.	<b>U</b>
<b>CO5</b>	Extend Gregory's series.	<b>E</b>
<b>Core Course II: INTEGRAL CALCULUS AND FOURIER SERIES</b>		<b>Subject Code: 22SCCMM2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Revision of all integral models.	<b>R</b>
<b>CO2</b>	Recall Integration by parts and Reduction formula.	<b>R</b>
<b>CO3</b>	Execute Geometric application of integration.	<b>AN</b>
<b>CO4</b>	Changing the order of integration.	<b>U</b>
<b>CO5</b>	Analyze Beta and Gamma functions and the relation between them.	<b>AN</b>
<b>Second Allied Course I: Physics-I</b>		<b>Subject Code: 22SACPH1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the elastic nature of materials.	<b>U</b>
<b>CO2</b>	Analyze the expression for young's modulus.	<b>AN</b>
<b>CO3</b>	Acquire knowledge of the centre of gravity.	<b>R</b>
<b>CO4</b>	Apply the laws of thermodynamics in thermal conductivity.	<b>AP</b>
<b>CO5</b>	Describe the concepts of interference and diffraction.	<b>E</b>



<b>Core Course III: DIFFERENTIAL EQUATIONS</b>		<b>Subject Code: 22SCCMM3</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Summarize First order, higher degree differential equations solvable for x, solvable for y and solvable for dy/dx.	<b>E</b>
<b>CO2</b>	Understand Particular integrals of second order differential equations with constant coefficients.	<b>U</b>
<b>CO3</b>	Solving Charpit's method.	<b>AP</b>
<b>CO4</b>	Learn about PDE of second order homogeneous equation with constant coefficients	<b>U</b>
<b>CO5</b>	Examine use of Laplace transforms in solving ODE with constant coefficients.	<b>AN</b>
<b>Core Course IV: ANALYTICAL GEOMETRY 3D</b>		<b>Subject Code: 22SCCMM4</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand Direction cosines of a line in space.	<b>U</b>
<b>CO2</b>	Analyze Skew lines and shortest distance between skew lines.	<b>AN</b>
<b>CO3</b>	Learn about the System of spheres generated by a sphere and plane.	<b>R</b>
<b>CO4</b>	Identifying Intersection of straight line and quadratic cone.	<b>AP</b>
<b>CO5</b>	Relating Tangents and tangent planes.	<b>E</b>
<b>Second Allied Course I: Physics-II</b>		<b>Subject Code: 16SACPH2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Applications of Gauss theorem.	<b>AP</b>
<b>CO2</b>	Describe the types of magnetisms.	<b>E</b>
<b>CO3</b>	Explain Pauli's exclusion principles and quantization of orbits.	<b>E</b>
<b>CO4</b>	Recognize the concepts of nuclear radiations and their properties.	<b>R</b>
<b>CO5</b>	Apply binary subtractions by 1's and 2's complement methods.	<b>Ap</b>
<b>Core Course V: SEQUENCES AND SERIES</b>		<b>Subject Code: 16SCCMM5</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Classification of sequences.	<b>AP</b>
<b>CO2</b>	Understand Behavior of monotonic sequences.	<b>U</b>
<b>CO3</b>	Analyze Cauchy sequences.	<b>AN</b>
<b>CO4</b>	Summarize test of convergence using comparison test.	<b>E</b>
<b>CO5</b>	Extending Test of convergence using D'Alembert's ratio test.	<b>E</b>
<b>Core Course VI: Classical Algebra And Theory Of Numbers</b>		<b>Subject Code: 16SCCMM6</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Relation between roots and coefficients of Polynomial Equations.	<b>E</b>
<b>CO2</b>	Diminishing, increasing and multiplying the roots by a constant.	<b>AP</b>
<b>CO3</b>	Form of the quotient and remainder.	<b>R</b>
<b>CO4</b>	Applications to maxima and minima.	<b>AP</b>
<b>CO5</b>	Learn Fermat's, Wilson's and Lagrange's theorem.	<b>U</b>

<b>Allied Course I: PROGRAMMING IN C</b>		<b>Subject Code: 16SACCS1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Describe the Basic Concepts of C.	<b>R</b>
<b>CO2</b>	Analyze Input and Output Operations.	<b>An</b>
<b>CO3</b>	Manipulate Array and Strings.	<b>Ap</b>
<b>CO4</b>	Illustrate Structures and Unions.	<b>Ap</b>
<b>CO5</b>	Discover Allocation of Memory using Dynamic Memory.	<b>Ap</b>
<b>Non Major Elective I: Nutrition for Women</b>		<b>Subject Code:16SNMEND1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recall the fundamentals of computers, hardware, software, and operating systems.	<b>R</b>
<b>CO2</b>	Understand the basics of the internet and how to use it.	<b>U</b>
<b>CO3</b>	Applications of bioinformatics.	<b>AP</b>
<b>CO4</b>	Describe biological data bases.	<b>E</b>
<b>CO5</b>	Explain protein structure and visualization software.	<b>E</b>
<b>Core Course VII: Vector Calculus And Fourier Series.</b>		<b>Subject Code:16SCCMM7</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recall Velocity and acceleration in vector and scalar fields.	<b>R</b>
<b>CO2</b>	Difference between normal surface integral and volume integral.	<b>AP</b>
<b>CO3</b>	Understand Gauss divergence theorem, Stoke's theorem and Green's theorem.	<b>U</b>
<b>CO4</b>	Analyze Fourier series expansion of periodic functions.	<b>AN</b>
<b>CO5</b>	Development in cosine series and in sine series.	<b>E</b>
<b>Core Course VIII: LINEAR ALGEBRA</b>		<b>Subject Code:16SCCMM8</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the concept of vector spaces.	<b>R</b>
<b>CO2</b>	Learn rank and Nullity.	<b>AP</b>
<b>CO3</b>	Extend Gram Schmidt orthogonalisation process.	<b>U</b>
<b>CO4</b>	Classification of matrices.	<b>AN</b>
<b>CO5</b>	Characteristic equation and bilinear forms.	<b>E</b>
<b>Allied Course III: Principles of Information Technology</b>		<b>SubjectCode:16SACCS2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recognize general software features and trends.	<b>R</b>
<b>CO2</b>	Classification of Digital Computer System.	<b>AP</b>
<b>CO3</b>	Explain Database Management Systems.	<b>E</b>
<b>CO4</b>	Discuss on Telecommunication System.	<b>E</b>
<b>CO5</b>	Application of Multimedia tools.	<b>AP</b>
<b>Non Major Elective-II Nutrition For Health and fitness</b>		<b>SubjectCode: 16SNMEND2</b>
<b>CO No</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recognize the significance of fitness and exercise physiology.	<b>R</b>
<b>CO2</b>	Explain the importance of physical exercise and nutrition.	<b>E</b>
<b>CO3</b>	Describe numerous types of physical exercise training for various muscleGroups.	<b>E</b>

CO4	Analyze Ameliorate diseases caused by poor eating habits and lack of physical activity.	AN
CO5	Define stress fitness and health management.	U
<b>Skill Base Elective -1: Page Maker</b>		<b>Subject Code: 16RSBE4:1</b>
<b>CO No</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Illustrate Adobe Page Maker 7.0	E
CO2	Explain about working of multiple pages.	E
CO3	Demonstrate the concept of graphics and mail merge.	E
CO4	Apply advanced graphics concepts Using Mail Merge.	AP
CO5	Show the working of long publications.	AP
<b>Core Course IX: NUMERICAL METHODS WITH MATLAB PROGRAMMING</b>		
<b>Subject Code: 16SCCMM9</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Solve problems in MATLAB.	AN
CO2	Create plots from the workshop window.	R
CO3	Apply the interacting fitting tools.	AP
CO4	Understand algebraic and transcendental equations.	U
CO5	Analyze Numerical integration using Trapezoidal and Simpson's one-third rules.	AN
<b>Core Course X: REAL ANALYSIS</b>		<b>Subject Code: 16SCCMM10</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Understand the real number system.	U
CO2	Recall Elementary properties of continuous functions.	R
CO3	Extend Daurboux's theorem on derivatives.	E
CO4	Understand Power series expansions.	U
CO5	Analyze Fundamental theorem of calculus and the first mean value theorem.	AN
<b>Core Course XI: STATICS</b>		<b>Subject Code: 16SCCMM11</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Recall Triangle of forces.	R
CO2	Understand Resultant of parallel forces	U
CO3	Evaluate Equilibrium of a particle on a rough inclined plane.	AN
CO4	Extend Reduction of coplanar forces.	E
CO5	Summarize Equation of common Catenary.	E
<b>Major based elective I: OPERATIONS RESEARCH</b>		
<b>Subject Code: 16SMBEMM1:1</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Apply the mathematical formulation on Linear Programming problems.	AP
CO2	Understand dual problem.	U
CO3	Analyze an initial basic feasible solution.	AN
CO4	Classification of queuing models.	AP
CO5	Evaluate the rules of network construction.	AN

<b>Skill Based Elective II:Corel Draw</b>		<b>Subject Code:16RSBE4:2</b>
<b>CO No</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Define corel draw basics.	RU
CO2	Discuss about drawing and selecting concepts.	U
CO3	Manipulate working with text in corel draw.	Ap
CO4	Practice working with images in detail.	Ap
CO5	Prepare pagelayout and background.	Ap
<b>Skill Base Elective-III: Dream Weaver</b>		<b>Subject Code: 16RSBE4:3</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Arrange the Dream Weaver Websites.	R
CO2	Explain about WebPages, Frames and Frame sets.	U
CO3	Compute CSS.	Ap
CO4	List Out Templates and Show the Flash Contents.	Ap
CO5	Analyze the JavaScript and Finalize the Site.	An
<b>Core Course XII :ABSTRACT ALGEBRA</b>		<b>Subject Code:16SCCMM12</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Recall the elementary properties of a Group.	R
CO2	Understand Cosets and Lagrange's theorem.	U
CO3	Analyze Normal subgroups and Quotient groups.	AN
CO4	Examine Characteristics of a Ring.	AN
CO5	Discuss Maximal and prime ideals.	E
<b>Core Course XIII: COMPLEX ANALYSIS</b>		<b>Subject Code:16SCCMM13</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Understand the functions of complex variables.	U
CO2	Deduce fixed points of Bilinear Transformation.	E
CO3	Analyze Cauchy's Integral formula.	AN
CO4	Develop zeros of analytic functions.	E
CO5	Evaluation of definite integrals.	AP
<b>Core Course XIV: DYNAMICS</b>		<b>Subject Code:16SCCMM14</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Recall Motion in a straight line under uniform acceleration.	R
CO2	Understand Path of a projectile.	U
CO3	Analyze Collision of elastic bodies.	AN
CO4	Describe Compositions of simple harmonic motions of the same period.	E
CO5	Examine Differential equation of central orbits.	AN
<b>Major based elective II: GRAPH THEORY</b>		<b>Subject Code:16SMBEMM2:1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Solve the Konigsberg Bridge problem.	AN
CO2	Understand Operations on Graphs.	U
CO3	Evaluate the characterization of Trees.	AN
CO4	Graphically find the planarity	AP
CO5	Differentiate between Kruskal's algorithm and Dijkstra's algorithm.	AP

<b>Major based elective III: ASTRONOMY</b>		<b>Subject Code:16SMBEMM3:1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand Relevant properties of sphere and formulae in spherical trigonometry.	<b>U</b>
<b>CO2</b>	Display Diagram of the celestial sphere.	<b>E</b>
<b>CO3</b>	Apply the laws of refraction.	<b>AP</b>
<b>CO4</b>	Examination of Kepler's laws in the case of earth.	<b>AN</b>
<b>CO5</b>	Analyze Maximum and minimum number of eclipses near a node and in a year.	<b>AN</b>
<b>Core Course IV: MATHEMATICS AND STATISTICS FOR MANAGERS</b>		
<b>Subject Code:16CCBB4</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Application of derivatives in business.	<b>AP</b>
<b>CO2</b>	Analyze the solutions of simultaneous linear equations.	<b>AN</b>
<b>CO3</b>	Differentiate Diagrammatic representation and Graphical representation.	<b>AP</b>
<b>CO4</b>	Understand Measures of central tendency.	<b>U</b>
<b>CO5</b>	Analyze Karl Pearson's coefficient of correlation and Spearman's Rank correlation.	<b>AN</b>
<b>Core Course VIII: OPERATIONS RESEARCH</b>		<b>Subject Code:16CCBB8</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Expand the formulation of linear programming problems.	<b>E</b>
<b>CO2</b>	Solve transportation problems.	<b>AP</b>
<b>CO3</b>	Deduce the probabilistic inventory problem.	<b>AP</b>
<b>CO4</b>	Solve assignment problems.	<b>AN</b>
<b>CO5</b>	Extend Replacement of equipment that deteriorates gradually.	<b>E</b>
<b>Allied Course III : OPERATIONS RESEARCH</b>		<b>Subject Code:16SACMA3</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Find Graphical solutions of two variables.	<b>AP</b>
<b>CO2</b>	Apply the Simplex method for constraints.	<b>AP</b>
<b>CO3</b>	Trace the Degeneracy in Transportation problem.	<b>AN</b>
<b>CO4</b>	Analyze the two jobs through m machines.	<b>AN</b>
<b>CO5</b>	Computation of PERT and CPM.	<b>E</b>
<b>Allied Course I: BIOSTATISTICS</b>		<b>Subject Code:16SACBS1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand functions of biostatics.	<b>U</b>
<b>CO2</b>	Classification of sampling.	<b>U</b>
<b>CO3</b>	Differentiate mean, median & mode.	<b>AP</b>
<b>CO4</b>	Analyze measures of dispersion.	<b>AN</b>
<b>CO5</b>	Extend skewness.	<b>E</b>

<b>Allied Course I: CALCULUS AND FOURIER SERIES Subject Code:16SACMM1</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Evaluate the radius of curvature.	AN
CO2	Understand the Integrating trigonometric substitution by parts of the integral.	U
CO3	Evaluate the definite integral.	AN
CO4	Analyze changing the order.	AN
CO5	Find Fourier coefficients for a given periodic function.	AP
<b>Allied Course II: Algebra ,Analytical Geometry (3d) And Trigonometry Subject Code:16SACMM2</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Expand the Binomial, Exponential and logarithmic.	E
CO2	Classify matrices.	AP
CO3	Find the shortest path between two skew lines.	AP
CO4	Deduce in a series of sines and cosines.	E
CO5	Apply Euler's formula.	AP
<b>Allied Course Iii:Ode ,Pde, Laplace Transforms And Vector Analysis Subject Code:16SACMM3</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Understand ordinary differential equation of first order.	U
CO2	Formation of partial differential equations by eliminating constants.	U
CO3	Summarize basic theorems in Laplace transforms.	E
CO4	Analyze inverse Laplace transforms	AN
CO5	Understand the gradient of a vector.	U
<b>Allied Course I: ALGEBRA AND CALCULUS Subject Code:16SACMA1</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Differentiate the relation between roots and coefficients.	AP
CO2	Understand maxima and minima.	U
CO3	Evaluate integration by parts and Fourier series.	E
CO4	Apply the differential equations in second order.	AP
CO5	Categorize matrices.	AP
<b>Allied Course II:Numerical Analysis And Statistics Subject Code:16SACMA2</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Understand algebraic and transcendental equations.	U
CO2	Summarize numerical differentiation.	E
CO3	Evaluate numerical solutions of ODE using various methods.	AN
CO4	Understand the mean median and mode.	U
CO5	Analyze correlation and regression.	AN

**DEPARTMENT OF MATHEMATICS**  
**Programme: M.Sc., MATHEMATICS**

**PROGRAMME OUTCOMES (PO)**

PO No.	Programme outcomes <i>Upon completion of the M.Sc., Degree Programme, the graduate will be able to</i>
<b>PO1</b>	Create problem-solving skills and apply them independently to problems in pure and applied mathematics.
<b>PO2</b>	Examine issues, generate hypotheses, assess and validate data, and draw appropriate conclusions.
<b>PO3</b>	Explore new avenues in the chosen field that remain conducive for research and development.
<b>PO4</b>	Develop good oral, written, scientific and technical communication skills.
<b>PO5</b>	Apply the mathematical concepts, in all the fields of learning, including higher research to recognize the need and prepare for lifelong learning.
<b>PO6</b>	Become an enlightened citizen who is committed to carrying out one's obligations within the boundaries of one's conferred rights and privileges.

**PROGRAMME SPECIFIC OUTCOMES (PSO)**

PSO No.	Programme Specific Outcomes <i>Upon completion of these courses the graduate will be able to</i>
<b>PSO1</b>	Provide a deeper knowledge of mathematical techniques and develop the ability to create their own research ideas.
<b>PSO2</b>	Communicate mathematical concepts effectively.
<b>PSO3</b>	Develop the ability to handle Mathematical software to develop the research articles in the future.
<b>PSO4</b>	Ability to think critically and creatively.
<b>PSO5</b>	Induce the interest to communicate Mathematics effectively and precisely using technology.
<b>PSO6</b>	Analyze and model real world problems based on mathematical principles.

**COURSE OUTCOMES (CO)**

<b>Core Course I: ALGEBRA</b>		<b>Subject Code:P22MACC11</b>	
CO No.	Course Outcome	PSO	Cognitive Level
<b>CO1</b>	Recall groups and Sylows theorem.		<b>R</b>
<b>CO2</b>	Categorize Quotient ring and Euclidean ring.		<b>AP</b>
<b>CO3</b>	Understand polynomial rings and inner product spaces.		<b>U</b>
<b>CO4</b>	Analyze the extension field and roots of polynomial.		<b>AN</b>
<b>CO5</b>	Apply elements of Galois theory.		<b>AP</b>

<b>Core Course II: REAL ANALYSIS</b>		<b>Subject Code:P22MACC12</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recognize the basic Topology.		<b>R</b>
<b>CO2</b>	Illustrate continuous functions.		<b>E</b>
<b>CO3</b>	Understand Riemann- Stieltjes integral.		<b>U</b>
<b>CO4</b>	Determine uniform convergence and continuity.		<b>AP</b>
<b>CO5</b>	Compare Inverse function theorem and Implicit function theorem.		<b>AN</b>
<b>Core Course III:Ordinary Differential Equations</b>		<b>Subject Code:P22MACC13</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recall the general solution of the Homogeneous equation.		<b>R</b>
<b>CO2</b>	Describe Bessel functions and properties of Legendre polynomials.		<b>E</b>
<b>CO3</b>	Deduce the linear system of first order equations.		<b>AP</b>
<b>CO4</b>	Examine oscillation theory and boundary value problems.		<b>AN</b>
<b>CO5</b>	Categorize of critical points and simple critical points of non-linear systems.		<b>AP</b>
<b>Choice Based Core Course I:Claasical Dynamics</b>		<b>Subject Code:P22MACC1A</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Define coordinates and constraints.		<b>R</b>
<b>CO2</b>	Apply Lagrange's equation and small oscillations.		<b>AP</b>
<b>CO3</b>	Special applications of Lagrange's equations and Gyroscopic system.		<b>AP</b>
<b>CO4</b>	Analyze Hamilton's equations and phase space.		<b>AN</b>
<b>CO5</b>	Estimate Hamilton –Jacobi equation and separability.		<b>AN</b>
<b>Elective Course I: Fuzzy Sets And Their Applications</b>		<b>Subject Code:P22MAE1A</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Define Fuzzy sets and extension principle for fuzzy sets.		<b>R</b>
<b>CO2</b>	Understand operations on fuzzy sets.		<b>U</b>
<b>CO3</b>	Apply Arithmetic operations on Fuzzy numbers.		<b>AP</b>
<b>CO4</b>	Differentiate Fuzzy relations and fuzzy morphisms.		<b>AP</b>
<b>CO5</b>	Analyze Fuzzy decision making and ranking methods.		<b>AN</b>



<b>Core Course IV: COMPLEX ANALYSIS</b>		<b>Subject Code:P22MACC21</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recognize elementary point set topology.		<b>R</b>
<b>CO2</b>	Apply fundamental theorems in complex integration.		<b>AP</b>
<b>CO3</b>	Retrieve zeros and poles.		<b>AN</b>
<b>CO4</b>	Focus the general form of Cauchy's theorem.		<b>U</b>
<b>CO5</b>	Apply Harmonic functions in power series expansions.		<b>AP</b>
<b>Core Course V: LINEAR ALGEBRA</b>		<b>Subject Code: P22MACC22</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Solve system of linear equations.		<b>AP</b>
<b>CO2</b>	Illustrate the algebra of linear transformations.		<b>E</b>
<b>CO3</b>	Convey the prime factorization of a polynomial.		<b>E</b>
<b>CO4</b>	Trace inverse of an invertible matrix using determinants.		<b>AN</b>
<b>CO5</b>	Distinguish simultaneous triangulation and Diagonalization.		<b>AP</b>
<b>Choice Based Core Course II :Partial Differential Equations</b>		<b>Subject Code:P22MACC2A</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Illustrate the origins of first order partial differential Equations.		<b>E</b>
<b>CO2</b>	Examine Cauchy's method of characteristics.		<b>AP</b>
<b>CO3</b>	Apply Higher order equations in physics.		<b>AP</b>
<b>CO4</b>	Analyze the solution of linear Hyperbolic equations		<b>AN</b>
<b>CO5</b>	Apply elementary solutions of Laplace's equations.		<b>AP</b>
<b>Elective Course II: Stochastic Processes</b>		<b>Subject Code : P22MAE2C</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recognize Specification of stochastic processes		<b>R</b>
<b>CO2</b>	Understand Markov chains with continuous state space.		<b>U</b>
<b>CO3</b>	Apply Markov chains with discrete state space.		<b>AP</b>
<b>CO4</b>	Distinguish between Renewal processes and Wald's equations.		<b>AP</b>
<b>CO5</b>	Analyze Stochastic processes in queuing model M/M/1.		<b>AN</b>

<b>Non Major Elective Course I :Statistics</b>		<b>Subject Code : P22MANME1</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand measures of central tendency, viz., Mean, Median and Mode in series of individual observation.		<b>U</b>
<b>CO2</b>	Workout simple problems in discrete and continuous series.		<b>AP</b>
<b>CO3</b>	Distinguish different types of correlation.		<b>AP</b>
<b>CO4</b>	Calculate karl pearson's correlation co-efficient for lot of problem.		<b>AP</b>
<b>CO5</b>	Compute partial and multiple regressions co-efficient for a plenty of problems.		<b>AN</b>
<b>Non Major Elective Course I :Introduction to MAT LAB</b>		<b>Subject Code : P22MAVAC1</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the main features of the MAT LAB development environment.		<b>U</b>
<b>CO2</b>	Use the MAT LAB GUI effectively.		<b>AP</b>
<b>CO3</b>	Design symbol algorithms to solve problems.		<b>E</b>
<b>CO4</b>	Write symbol programs in MAT LAB to solve scientific and mathematical problems.		<b>AN</b>
<b>CO5</b>	Use MAT LAB as a stimulations tool.		<b>AP</b>
<b>Core Course IX: Classical Dynamics</b>		<b>Subject Code:P16MA31</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Define coordinates and constraints		<b>R</b>
<b>CO2</b>	Apply Lagrange's equation and small oscillations.		<b>AP</b>
<b>CO3</b>	Special applications of Lagrange's equations and Gyroscopic system.		<b>AP</b>
<b>CO4</b>	Analyze Hamilton's equations and phase space.		<b>AN</b>
<b>CO5</b>	Estimate Hamilton –Jacobi equation and separability.		<b>AN</b>
<b>Core Course X : Measure And Integration</b>		<b>Subject Code:P16MA32</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand Measure on real line.		<b>U</b>
<b>CO2</b>	Analyze Integration of non negative functions.		<b>AN</b>
<b>CO3</b>	Illustrate measure spaces and outer measures.		<b>E</b>
<b>CO4</b>	Compare convergence in measure and the Jordan decomposition.		<b>AP</b>
<b>CO5</b>	Deduce The product measure and Fubini's theorem.		<b>AN</b>

<b>Core Course XI: TOPOLOGY</b>			<b>Subject Code:P16MA33</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the knowledge of Topological spaces and the product topology.		<b>U</b>
<b>CO2</b>	Relate Continuous functions and metric topology.		<b>AP</b>
<b>CO3</b>	Analyze Connected subspaces of the real line.		<b>AN</b>
<b>CO4</b>	Find out Limit point compactness.		<b>U</b>
<b>CO5</b>	Characterize Countability and separation axioms.		<b>R</b>
<b>Elective Course III: Discrete Mathematics</b>			<b>Subject OCode:P16MAE3B</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recall Relations and functions.		<b>R</b>
<b>CO2</b>	Apply Mathematical logic and truth table.		<b>AP</b>
<b>CO3</b>	Relate Distributive lattices and Isomorphic lattices.		<b>AP</b>
<b>CO4</b>	Understand Boolean algebra and Coding theory.		<b>U</b>
<b>CO5</b>	Compare Phrase structure grammars and Languages.		<b>AN</b>
<b>Elective Course IV:Advanced Operations Research</b>			<b>Subject Code:P16MAE4B</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recognize Integer programming.		<b>R</b>
<b>CO2</b>	Illustrate Dynamic programming.		<b>E</b>
<b>CO3</b>	Evaluate Decision theory and games.		<b>E</b>
<b>CO4</b>	Develop Inventory models.		<b>E</b>
<b>CO5</b>	Summarize Non linear programming algorithms.		<b>R</b>
<b>Core Course XII:FUNCTIONAL ANALYSIS</b>			<b>Subject Code:P16MA41</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Differentiate Algebraic systems and Banach spaces.		<b>AP</b>
<b>CO2</b>	Understand Hilbert spaces and orthonormal sets.		<b>U</b>
<b>CO3</b>	Derive finite-dimensional spectral theory.		<b>E</b>
<b>CO4</b>	Classify General preliminaries on Banach algebra.		<b>AP</b>
<b>CO5</b>	Analyze The Gelfand-Neumark theorem.		<b>AN</b>

<b>Core Course XIII: DIFFERENTIAL GEOMETRY</b>		<b>Subject Code:P16MA42</b>	
<b>Co No.</b>	<b>Course Outcome</b>	<b>Pso</b>	<b>Cognitive Level</b>
<b>CO1</b>	Distinguish Between Curves And Spaces.		<b>Ap</b>
<b>CO2</b>	Relate Intrinsic Properties Of A Surface.		<b>R</b>
<b>CO3</b>	Apply Canonical Geodesic Equations And Geodesics Curvature.		<b>Ap</b>
<b>CO4</b>	Find Out Non Intrinsic Properties Of A Surface.		<b>An</b>
<b>CO5</b>	Describe Differential Geometry Of Surfaces.		<b>E</b>
<b>Core Course XIV:Advanced Numerical Analysis</b>		<b>Subject Code:P16MA43</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recall Transcendental and polynomial equations.		<b>R</b>
<b>CO2</b>	Understand System of linear algebraic equations and Eigen value problems.		<b>U</b>
<b>CO3</b>	Analyze Interpolation and approximation.		<b>AN</b>
<b>CO4</b>	Describe Gauss Legendre integration method and lobatto integration methods.		<b>E</b>
<b>CO5</b>	Analyze Minimization of local truncation error.		<b>AN</b>
<b>Elective Course V:Algebraic Number Theory</b>		<b>Subject Code:P16MAE5C</b>	
<b>CO No.</b>	<b>Course Outcome</b>	<b>PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Remember Divisibility and congruences.		<b>R</b>
<b>CO2</b>	Understand Techniques of numerical calculations.		<b>U</b>
<b>CO3</b>	Analyze Number theory.		<b>AN</b>
<b>CO4</b>	Summarize Equivalence and reduction of binary quadratic forms.		<b>E</b>
<b>CO5</b>	Examine Diophantine equations and simultaneous linear Diophantine equations		<b>AN</b>

## DEPARTMENT OF CHEMISTRY

### Programme: B.Sc., Chemistry

#### PROGRAMME OUTCOMES (PO)

PO No.	Programme outcomes <i>Upon completion of the B.Sc., Degree Programme, the graduate will be able to</i>
PO1	Demonstrate and apply the fundamental knowledge of chemistry.
PO2	Design, carry out, record, and analyze the outcomes of chemical processes using critical thinking and scientific knowledge.
PO3	Raising awareness of the influence of chemistry on the environment, society, and development.
PO4	Discover the green way for chemical reactions for long-term development.
PO5	Instill a scientific temperament in students and those outside the scientific community.
PO6	Make use of contemporary methodologies, high-quality equipment, and chemistry software.

#### PROGRAMME SPECIFIC OUTCOMES (PSO)

PSO No.	Programme Specific Outcomes <i>Upon completion of these courses the graduate will be able to</i>
PSO1	Apply chemistry knowledge to solve problems in various fields of chemistry.
PSO2	Understand the structure and properties of atoms/molecules/compounds and characteristics/ mechanisms of chemical reactions.
PSO3	Use technologies and instrumentation together to explore new areas of research.
PSO4	Explain the various aspects and present the concepts of chemistry effectively.
PSO5	Carry out experiments, record the observations and present the inference/results.
PSO6	Identify the study of the compositions structure ,properties, and reaction of matter.

#### COURSE OUTCOMES (CO)

Core Course I : General Chemistry I		Subject Code:22SCCCH1
CO No.	Course Outcome	CognitiveLevel
CO1	Explain the arrangement of elements in the periodic table to understand the periodic properties	R
CO2	Comprehend the laboratory hygiene, safety measures, principles of qualitative and quantitative analysis	U
CO3	Recognize the various methods of preparation, structure and stability of reaction intermediates.	U
CO4	Illustrate the chemistry of cyclo alkanes, alkenes and alkynes.	AN
CO5	Demonstrate the preparation and properties of sols, colloids and emulsions.	AN

<b>First Allied Course I:Computer Science-I</b>		<b>Subject Code: 22SCACCS1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>CognitiveLevel</b>
<b>CO1</b>	Recall algorithms and flowcharts for computing logic.	<b>R</b>
<b>CO2</b>	Summarize the basic knowledge to develop C programs.	<b>E</b>
<b>CO3</b>	Apply and implement programs for solving real world problems.	<b>AP</b>
<b>CO4</b>	Examine and explore the use of memory allocation for application programs.	<b>E</b>
<b>CO5</b>	Design and develop alternate methods of solving variety of problems.	<b>E</b>
<b>Core Course II : General Chemistry II</b>		<b>Subject Code:22SCCCH2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>CognitiveLevel</b>
<b>CO1</b>	Understand the principles of bonding and theories of chemical bonding.	<b>U</b>
<b>CO2</b>	Comprehend the chemistry of S-block and Zero group elements.	<b>U</b>
<b>CO3</b>	Demonstrate concepts of inorganic semi micro qualitative analysis.	<b>U</b>
<b>CO4</b>	Analyze the aromatic character of benzene type molecules to learn the reaction mechanisms involved in haloalkanes and halobenzenes.	<b>AN</b>
<b>CO5</b>	Apply the properties of atoms, characteristics, effect of radiations and the significance of wave functions.	<b>U</b>
<b>Allied courseIII:Principles of Information Technology</b>		<b>subject code:22scaccs2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>CognitiveLevel</b>
<b>CO1</b>	Explore careers in information technology.	<b>AP</b>
<b>CO2</b>	Work with the Internet and other technologies for information exchange.	<b>U</b>
<b>CO3</b>	Handle online security and privacy issues.	<b>R</b>
<b>CO4</b>	Analyze the different types of application software, such as word processing, desktop publishing, spreadsheet, and presentation software.	<b>AN</b>
<b>CO5</b>	Construct the basics of database technology.	<b>E</b>
<b>Core Course III : General Chemistry III</b>		<b>Subject Code: 16SCCCH3</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Examine about chemistry of p-block elements.	<b>A</b>
<b>CO2</b>	Illustrate the preparations and properties of interhalogen compounds.	<b>R</b>
<b>CO3</b>	Comprehend the arrangement of atoms in space, isomers and their nomenclature.	<b>U</b>
<b>CO4</b>	Recognize gas laws, properties of real gases and types of molecular velocities.	<b>AN</b>
<b>CO5</b>	Analyzes the types, structure and properties of solids and crystal structure.	<b>U</b>

<b>Second Allied Course I:Physics-I</b>		<b>Subject Code:16SACPH1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the elastic nature of materials.	<b>U</b>
<b>CO2</b>	Analyze the expression for young's modules.	<b>AN</b>
<b>CO3</b>	Acquire knowledge of the centre of gravity.	<b>R</b>
<b>CO4</b>	Apply the laws of thermodynamics in thermal conductivity.	<b>AP</b>
<b>CO5</b>	Describe the concepts of interference and diffraction.	<b>E</b>
<b>Non Major Elective I:Chemistry in every day life</b>		<b>Subject Code: 16SNMECH1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the characteristics of water.	<b>U</b>
<b>CO2</b>	Describe effect of phosphorous on plant growth.	<b>E</b>
<b>CO3</b>	Find the functions secondary and micro nutrition's.	<b>AP</b>
<b>CO4</b>	Define fungicides, herbicides, acaricides.	<b>R</b>
<b>CO5</b>	Classification of food and its function.	<b>AN</b>
<b>Core Course IV: General Chemistry IV</b>		<b>Subject Code : 16SCCCH4</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Illustrate the general characteristics of d and f block elements.	<b>A</b>
<b>CO2</b>	Understand the reactions of organo metallic compounds	<b>U</b>
<b>CO3</b>	Comprehend the fundamental concepts of first law of thermodynamics, to relate heat, work and energy and to calculate work from pressure – volume relationships	<b>R</b>
<b>CO4</b>	Explain the fundamental concepts of rate of the reaction, determination of order of the reaction and theories of reaction rate.	<b>AN</b>
<b>CO5</b>	Recognize chemistry of alcohols, phenols and ethers.	<b>R</b>
<b>Second Allied Course I:Physics-II</b>		<b>Subject Code:16SACPH2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Applications of Gauss theorem.	<b>AP</b>
<b>CO2</b>	Describe the types of magnetisms.	<b>E</b>
<b>CO3</b>	Explain Pauli's exclusion principles and quantization of orbits.	<b>E</b>
<b>CO4</b>	Recognize the concepts of nuclear radiations and their properties.	<b>R</b>
<b>CO5</b>	Apply binary subtractions by 1's and 2's complement methods.	<b>Ap</b>
<b>Non Major Elective II: Health Chemistry</b>		<b>Subject Code : 16SNMECH2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the essentials of health and drugs.	<b>U</b>
<b>CO2</b>	Describe the functions of enzymes, harmones and body fluids.	<b>E</b>
<b>CO3</b>	Recognize the common disease and their treatments.	<b>R</b>
<b>CO4</b>	Analyze the types of enzymes and its actions.	<b>AN</b>
<b>CO5</b>	Summarize the common diseases like jaundice and ulcer.	<b>AP</b>

<b>Skill Based Elective I:EthnoMedicine</b>		<b>Subject Code :16RSBE5:1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand plant nutrition and the evolution of food processing.	<b>U</b>
<b>CO2</b>	Illustrate human plant selection patterns for food, medicine, poison, ceremonial, and religion.	<b>E</b>
<b>CO3</b>	Analyze how to manage wild resources in the traditional way.	<b>AN</b>
<b>CO4</b>	Recognize the legal framework that governs plant usage and access.	<b>R</b>
<b>CO5</b>	Applications of plants function on a daily basis.	<b>AP</b>
<b>Core Course V: Inorganic Chemistry I</b>		<b>Subject Code :16SCCCH5</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the basics theories of coordination compounds.	<b>U</b>
<b>CO2</b>	Explain valence bond theory and molecular orbital theory of coordination compounds.	<b>AN</b>
<b>CO3</b>	Understand the stability and nucleophilic substitution reactions in coordination compounds.	<b>R</b>
<b>CO4</b>	Demonstrate the preparation and properties of nitrosyl compounds.	<b>U</b>
<b>CO5</b>	Define the basic principles and applications of magnetic properties	<b>AN</b>
<b>Core Course VI : Organic Chemistry I</b>		<b>Subject Code: 16SCCCH6</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recall nomenclature and the reactions of carbonyl compounds.	<b>R</b>
<b>CO2</b>	Understand nomenclature , preparation, properties and uses of Carboxylic acids.	<b>U</b>
<b>CO3</b>	Explain the chemistry of nitrogen compounds	<b>AN</b>
<b>CO4</b>	Differentiate the heterocyclic compounds and dyes.	<b>AN</b>
<b>CO5</b>	Apply the oxidation and reducing agents for synthesis.	
<b>Core Course VII : Physical Chemistry I</b>		<b>Subject Code :16SCCCH7</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the various concepts of photochemistry and group theory.	<b>U</b>
<b>CO2</b>	Comprehend the second law of thermodynamics, carnot cycle, carnot theorem, entropy, free energy and Maxwell's relations.	<b>R</b>
<b>CO3</b>	Define the third law of thermodynamics, Van't Hoff isotherm.	<b>R</b>
<b>CO4</b>	Recognize the laws and the properties of solutions.	<b>U</b>
<b>CO5</b>	Apply the fundamental concepts of phase rule and its applications to one, two and three component system.	<b>R</b>



<b>Major Based Elective I (A): Analytical Chemistry Subject Code : 16SMBECH1:1</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Recall the storage and handling of various chemicals and first aid procedures.	A
CO2	Explain data analysis, various separation techniques.	AN
CO3	Illustrate gravimetric analysis and various thermo analytical methods.	U
CO4	Differentiate visible spectrophotometry and colorimetry	A
CO5	Explain the various electroanalytical techniques.	AN
<b>Skill Based Elective II: Pharmacognosy Subject Code :16RSBE5:2</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Understand pharmacognosy's history, definition, and scope	U
CO2	Classification of crude medications	AP
CO3	Apply how to make a crude and commercial medicine	AP
CO4	Describe the organoleptic analysis of medicinal herbs	E
CO5	Acquaintance of analytical pharmacognosy	R
<b>Skill Based Elective III: Herbs &amp; drugs Action Subject Code :16RSBE5:3</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Classification of medicinal plants based on their effects.	AP
CO2	Understand allergies and their types.	U
CO3	Analyze plant pharmaceuticals that affect the brain and neurological System.	AN
CO4	Describe drugs for heart disease, high blood pressure, and respiratory Problems.	E
CO5	Illustrate plant drugs for urinogenital disorder, memory stimulants, dissolving stones, anti inflammatory and anti cancer drugs	E
<b>Core Course VIII: Organic Chemistry II Subject Code : 16SCCCH8</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Recall the chemistry of carbohydrates.	R
CO2	Understand the chemistry of proteins and vitamins.	U
CO3	Explain the alkaloids and terpenoids.	AN
CO4	Recognize about molecular arrangements.	R
CO5	Applications of organic spectroscopy.	R
<b>Core Course IX: Physical Chemistry II Subject Code : 16SCCCH9</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Discuss the concepts of electrochemistry.	A
CO2	Understand electrolytic cells.	U
CO3	Explain the types and theories of catalysis	AN
CO4	Demonstrate the adsorption isotherm.	A
CO5	Apply the spectroscopic techniques..	U
<b>Major Based Elective II: Nuclear, Industrial Chemistry And</b>		

<b>Metallic State</b>		<b>Subject Code:16SMBECH2:1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>CognitiveLevel</b>
CO1	Understand the fundamentals of nuclear chemistry.	U
CO2	Applications of nuclear chemistry.	U
CO3	Explain the metallic bond, theories and applications.	AN
CO4	Applications of inorganic polymers.	U
CO5	Applications of chemistry in industries.	A
<b>Major Based Elective III:Polymer Chemistry</b>		<b>Subject Code : 16SMBECH3:1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>CognitiveLevel</b>
CO1	Understand the chemistry of polymers	U
CO2	Comprehend the importance of polymers.	A
CO3	Summarize the concepts of polymerization and techniques.	U
CO4	Explain the advances in polymers.	AN
CO5	Recognize the commercial polymers.	A
<b>Allied Course III: General Chemistry II</b>		<b>Subject Code :16SACCH2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>CognitiveLevel</b>
CO1	Recall the basics of nuclear chemistry and metallic bond.	A
CO2	Understand the properties and applications of carbohydrates, amino acids and proteins.	U
CO3	Explain the basic concepts of polymers.	AN
CO4	Differentiate heterocyclic compounds and stereoisomerism.	A
CO5	Apply the electrochemistry.	AN

## DEPARTMENT OF MICROBIOLOGY

**Programme: B.Sc., Microbiology**

### PROGRAMME OUTCOMES (PO)

<b>PO No.</b>	<b>Programme outcomes</b>
	<i>Upon completion of the B.Sc., Degree Programme, the graduate will be able to</i>
PO1	Demonstrate holistic knowledge on the various facets of microbiology.
PO2	Make use of fundamental skills such as cultivating microorganisms, keeping bacteria, handling microbes safely, following proper microbiological procedures, and so on.
PO3	Apply microbiological principles to a wide range of fields such as medicine, industry, environment, genetics, agriculture, food, and others.
PO4	Demonstrate key practical competences in dealing with microorganisms for research purposes.
PO5	Analyze microbe-related problems, communicate them to peers/team members/other stakeholders and implement corrective actions.
PO6	Engage in lifelong learning in the broadest context of scientific advancement.

## PROGRAMME SPECIFIC OUTCOMES (PSO)

PSO No.	Programme Specific Outcomes <i>Upon completion of these courses the graduate will be able to</i>
PSO1	Understand the contribution of various scientists and scope of different branches of Microbiology.
PSO2	Comprehend the importance of instruments and techniques in microbiology
PSO3	Make clear the structure of DNA, RNA and Protein.
PSO4	Analyze the Environmental and Medical insight of microorganisms.
PSO5	Explain and describe importance of organic compounds and their chemistry.
PSO6	Recognize various kinds of prokaryotic and eukaryotic microbes and their importance

## COURSE OUTCOMES (CO)

Core Course I: Basics of Microbiology		Subject Code: 22SCCMB1
CO No.	Course Outcome	Cognitive Level
CO1	Understand the historical Developments in Microbiology.	U
CO2	Recognize the usage of microscope.	R
CO3	Describe eubacteria, archaebacteria and actinomycetes	E
CO4	Classification of microorganisms.	AP
CO5	Understand the concept of microbial growth, culture media and the process of controlling microbial growth.	U
CO6	Analyze the general characteristics of prokaryotic and eukaryotic microorganisms.	AN
Allied Course – I : Fundamentals of Biological Sciences		Subject Code : 22SACMB1
CO No.	Course Outcome	Cognitive Level
CO1	Understand the biological concepts of plant and animal evolution and their establishments.	U
CO2	Recognize plants and animals on a par with their higher education.	R
CO3	Describe Imbibe the biological sciences' importance to human society.	E
CO4	Enhance their knowledge of existing biological diversity and of a safe earth.	AP
CO5	Analyze the current research topics that could stimulate towards higher studies.	AN
CO6	Illustrate the biological sciences' importance to human society.	E
Core Course II: Microbial Physiology		Subject Code: 22SCCMB2
CO No.	Course Outcome	Cognitive Level
CO1	Understand the nature of nutrients required by microbes.	U
CO2	Classification of macro molecules based on their nutritional needs.	AP

<b>CO3</b>	Describe the various factors which effect & affect microbial growth as well as the functions of enzymes.	<b>E</b>
<b>CO4</b>	Comprehend how energy is synthesized from carbohydrates, proteins and fatty acids	<b>U</b>
<b>CO5</b>	Examine the synthesis of macro molecules through metabolism.	<b>AP</b>

<b>Allied Course II: General Biochemistry</b>		<b>Subject Code: 22SACMB2</b>
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<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the biological & chemical nature and functions of cells.	<b>U</b>
<b>CO2</b>	Describe the basics of bio-molecules synthesizing mechanisms and their regulations.	<b>E</b>
<b>CO3</b>	Explain about biological energy sources and transferring molecules.	<b>AP</b>
<b>CO4</b>	Illustrate the molecules associated with metabolic functional systems.	<b>E</b>
<b>CO5</b>	Assimilate the basic knowledge of cell structural compositions.	<b>R</b>
<b>CO6</b>	Examine the basics of bio-molecules' synthesizing mechanisms and regulations.	<b>AN</b>

<b>Core Course III: Immunology</b>		<b>Subject Code: 16SCCMB3</b>
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<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Describe the history of immunology and immunohematology.	<b>E</b>
<b>CO2</b>	Understand the immune system	<b>U</b>
<b>CO3</b>	Demonstrate antigens and the various types of antigens.	<b>E</b>
<b>CO4</b>	Explain Immunodeficiency illnesses, antigen and antibody	<b>AP</b>
<b>CO5</b>	Recognize hypersensitivity reactions as well as the foundational ideas behind transplantation and autoimmunity	<b>R</b>

<b>Allied Course I: BIOSTATISTICS</b>		<b>Subject Code:16SACBS1</b>
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<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand functions of biostatistics.	<b>U</b>
<b>CO2</b>	Classification of sampling.	<b>U</b>
<b>CO3</b>	Differentiate mean, median & mode.	<b>AP</b>
<b>CO4</b>	Analyze measures of dispersion.	<b>AN</b>
<b>CO5</b>	Extend skewness.	<b>E</b>

<b>Non Major Elective-I: Working Principles Of Internet</b>		<b>Subject Code:16SNMECS1</b>
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<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Define Internet and Discuss about Internet's underlying Architecture.	<b>R</b>
<b>CO2</b>	Discuss about connecting and communicating on the internet.	<b>Ap</b>
<b>CO3</b>	Describe World Wide Web Works and List out the common Internet Tools.	<b>R</b>

<b>CO4</b>	Summarize the Multimedia on Internet.	<b>U</b>
<b>CO5</b>	Explain about Safeguarding the Internet.	<b>U</b>
<b>Core Course IV: Introductory virology</b>		<b>Subject Code: 16SCCMB4</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Describe the definitions, structure, and classification of viruses while introducing the history of virology.	<b>E</b>
<b>CO2</b>	Examine the cultivation, purification, characterization, separation, and testing of viruses.	<b>AP</b>
<b>CO3</b>	Discover bacteriophages' classification and life cycle.	<b>E</b>
<b>CO4</b>	Recognize the fundamental characteristics of DNA-containing viruse.	<b>R</b>
<b>CO5</b>	Classification of plant virus nomenclature.	<b>AN</b>
<b>Second Allied Course III: Bioinformatics and computer applications in biology</b>		
<b>subject Code:16SACBS2</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recall the fundamentals of computers, hardware, software, and operating systems.	<b>R</b>
<b>CO2</b>	Understand the basics of the internet and how to use it.	<b>U</b>
<b>CO3</b>	Applications of bioinformatics.	<b>AP</b>
<b>CO4</b>	Describe biological data bases.	<b>E</b>
<b>CO5</b>	Explain protein structure and visualization software.	<b>E</b>
<b>NonMajorElective-II:FundamentalOfInformation Technology</b>		<b>Subject Code: 16SNMECS2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Describe Generation and Classification of Computers.	<b>R</b>
<b>CO2</b>	List out Input and Output Devices.	<b>R</b>
<b>CO3</b>	Discuss about Programming Languages.	<b>R</b>
<b>CO4</b>	Classify the Computers Networks.	<b>U</b>
<b>CO5</b>	Analyze the Computer Security and Computer Circuses.	<b>An</b>
<b>Skill Based Elective I: Ethnomedicine</b>		<b>Subject Code:16RSBE5:1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand plant nutrition and the evolution of food processing.	<b>U</b>
<b>CO2</b>	Illustrate human plant selection patterns for food, medicine, poison, ceremonial, and religion.	<b>E</b>
<b>CO3</b>	Analyze how to manage wild resources in the traditional way.	<b>AN</b>
<b>CO4</b>	Recognize the legal framework that governs plant usage and access.	<b>R</b>
<b>CO5</b>	Applications of plants function on a daily basis.	<b>AP</b>
<b>Core Course V: Medical microbiology</b>		<b>Subject Code: 16SCCMB5</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Describe the typical microbial flora of a healthy human body and the postulates of Koch and River can be taught.	<b>E</b>

CO2	Discover the various organ systems that are affected by bacterial illnesses.	AN
CO3	Definition of viral infections that impact various organ systems.	R
CO4	Find out about fungal and protozoan infections that affect different organ systems	AP
CO5	Demonstrate how to use common techniques to isolate and identify bacterial, fungal, viral, and protozoan parasites.	E

### Core Course VI: Agricultural and Environmental Microbiology

Subject Code: 16SCCMB6

CO No.	Course Outcome	Cognitive Level
CO1	Identify the basic concepts and ranges of agricultural and environmental microbiology.	AP
CO2	Find information about plant disease control methods, pathogen entry, symptoms, and the disease cycle.	AN
CO3	Understand microbial ecology and microorganisms that live in harsh settings	U
CO4	Describe the aquatic ecosystems and microbiological water quality testing.	E
CO5	Recognize the various garbage types, how to handle liquid and solid waste, and how to compost.	R

### Core Course VII: Molecular biology and Microbial genetics

Subject Code: 16SCCMB7

CO No.	Course Outcome	Cognitive Level
CO1	Acquire a basic knowledge of the genes and genomes of bacteria	R
CO2	Understand the DNA replication process used by prokaryotes.	U
CO3	Analyze the production of proteins.	AN
CO4	Understand the mechanisms of gene transfer	U
CO5	Recognize the mechanisms underlying DNA repair, transposons, and mutations	R

### Major Based Elective I: Fundamentals of Botany and zoology

Subject Code: 16SMBEMB1

CO No.	Course Outcome	Cognitive Level
CO1	Recall the fundamentals of plant taxonomy and naming	U
CO2	Recognize angiosperms, gymnosperms, pteridophytes, bryophytes, and lichens, as well as their range and economic relevance	R
CO3	Describe the basics of plant physiology and reproduction	E
CO4	Illustrate the basics of animal physiology and reproduction	E
CO5	Explain cell division (mitosis and meiosis) and egg varieties	AP

### Skill Based Elective II: Pharmacognosy

Subject Code: 16RSBE5:2

CO No.	Course Outcome	Cognitive Level
CO1	Understand pharmacognosy's history, definition, and scope	U
CO2	Classification of crude medications	AP

<b>CO3</b>	Apply how to make a crude and commercial medicine	<b>AP</b>
<b>CO4</b>	Describe the organoleptic analysis of medicinal herbs	<b>E</b>
<b>CO5</b>	Acquaintance of analytical pharmacognosy	<b>R</b>
<b>Skill Based Elective III: Herbs and drugs action</b>		<b>Subject Code: 16RSBE5:3</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Classification of medicinal plants based on their effects.	<b>AP</b>
<b>CO2</b>	Understand allergies and their types.	<b>U</b>
<b>CO3</b>	Analyze plant pharmaceuticals that affect the brain and neurological system.	<b>AN</b>
<b>CO4</b>	Describe drugs for heart disease, high blood pressure, and respiratory problems.	<b>E</b>
<b>CO5</b>	Illustrate plant drugs for urogenital disorder, memory stimulants, dissolving stones, anti-inflammatory and anti-cancer drugs	<b>E</b>
<b>Core Course VIII: Food Microbiology</b>		<b>Subject Code: 16SCCMB8</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the concepts of Food and nutrition.	<b>U</b>
<b>CO2</b>	Illustrate how food fermentation works.	<b>E</b>
<b>CO3</b>	Acquire knowledge of food deterioration, contamination, and preservation.	<b>R</b>
<b>CO4</b>	Find out more about food borne illnesses and food poisoning.	<b>AN</b>
<b>CO5</b>	Recognize the many ways of food preservation.	<b>R</b>
<b>Core Course IX: Industrial Microbiology</b>		<b>Subject Code: 16SCCMB9</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Apply the bioprocess technology in the bioprocess industry.	<b>AP</b>
<b>CO2</b>	Describe the several forms of fermentation.	<b>E</b>
<b>CO3</b>	Understand cell and enzyme immobilisation and downstream processing.	<b>U</b>
<b>CO4</b>	Examine how to use microbes to make pharmaceuticals.	<b>AN</b>
<b>CO5</b>	Explain how to make high-value industrial products.	<b>E</b>
<b>Major Based Elective II: Recombinant DNA technology</b>		<b>Subject Code: 16SMBEMB2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the basics of rDNA technology and its significance.	<b>U</b>
<b>CO2</b>	Recognize the restriction endonuclease enzyme.	<b>R</b>
<b>CO3</b>	Illustrate the various types of cloning vectors.	<b>E</b>
<b>CO4</b>	Describe how to transfer genes and DNA using various methods.	<b>E</b>
<b>CO5</b>	Application of rDNA technology.	<b>AP</b>

<b>Major Based Elective III: Microbial biotechnology and bioethics</b>		
<b>Subject Code: 16SMBEMB3</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Application of employing microorganisms in the industrial setting.	<b>AP</b>
<b>CO2</b>	Comprehend biofertilizer microbial production	<b>U</b>
<b>CO3</b>	Describe the microbial generation of pharmaceutically useful compounds	<b>E</b> <b>U</b>
<b>CO4</b>	Understand how plants are genetically modified.	<b>AN</b>
<b>CO5</b>	Analyze Intellectual Property Rights.	
<b>Non major: Gender Studies</b>		<b>Subject Code: UGGS</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Define Boys and girls should be aware of each other's strengths and weaknesses.	<b>R</b>
<b>CO2</b>	Develop empathy for people of all genders to live a more morally full life.	<b>E</b>
<b>CO3</b>	Recognize Gender-Based Discrimination	<b>R</b>
<b>CO4</b>	Promote a mentality change toward a more gender-balanced workplace and women's empowerment.	<b>E</b>
<b>CO5</b>	Discover the protection strategies and movements used by women.	<b>E</b>

## **DEPARTMENT OF MICROBIOLOGY**

**Programme: M.Sc., Microbiology**

### **PROGRAMME OUTCOMES (PO)**

<b>PO No.</b>	<b>Programme outcomes</b>
	<i>Upon completion of the M.Sc., Degree Programme, the graduate will be able to</i>
<b>PO1</b>	Use specialized microbiology knowledge from a variety of areas to critically assess and evaluate microbiological, environmental and health-related issues.
<b>PO2</b>	Function effectively as teams to plan tasks, execute them to achieve the set goal, and analyze risk and uncertainties involved in the environment, health, and allied sectors.
<b>PO3</b>	Demonstrate proficiency in regular and specialized microbiological laboratory abilities relevant to microbiological research or clinical procedures, such as laboratory safety and properly reporting observation and analysis.
<b>PO4</b>	Communicate scientific concepts, experimental data, and analytical reasoning in both spoken and written form.
<b>PO5</b>	Practice the adaptability required for careers in microbiology.



**PROGRAMME SPECIFIC OUTCOMES (PSO)**

<b>PSO No.</b>	<b>Programme Specific Outcomes</b> <i>Upon completion of these courses the graduate will be able to</i>
<b>PSO1</b>	Understand the basic features of microbes such as bacteria, fungi, algae, protozoa and virus.
<b>PSO2</b>	Explain the interrelationships among biological energy, functions and health.
<b>PSO3</b>	Innovative findings in microbial molecular organism..
<b>PSO4</b>	Develop valuable aptitudes to prepare samples for a multifariousness of analytical methods.
<b>PSO5</b>	Acquire knowledge on fermented food products.
<b>PSO6</b>	Prepare various solutions required for diagnostic producers in laboratories.

**COURSE OUTCOMES (CO)**

<b>Core Course I: General Microbiology</b>		<b>Subject Code: P22MBCC11</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand microbial structure and functions of microorganisms.	<b>U</b>
<b>CO2</b>	Compare the characteristics of prokaryotes and eukaryotes	<b>AP</b>
<b>CO3</b>	Analyze the similarities and differences among various physiological groups of bacteria / archae.	<b>AN</b>
<b>CO4</b>	Recognize the general bacteriology and microbial techniques for isolation of pure culture of bacteria, fungi and algae.	<b>R</b>
<b>CO5</b>	Carry out standard cultural handling responsibilities securely and proficiently.	<b>AN</b>
<b>Core Course II: Biological Macromolecules</b>		<b>Subject Code: P22MBCC12</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the structure and function of biological molecules.	<b>U</b>
<b>CO2</b>	Discuss the relationships between various biomolecules and the effects of abnormal behaviour.	<b>E</b>
<b>CO3</b>	Understand the structure and functions of blood, hormones and phytohormones.	<b>U</b>
<b>CO4</b>	Analyze the information about basic metabolic regulators' characteristic features	<b>AN</b>
<b>CO5</b>	Describe the connections between biological energy, functions, and health.	<b>E</b>
<b>Core choice Course I: Applied Biological Sciences</b>		<b>Subject Code: P22MBCC1A</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the important components of biological sciences.	<b>U</b>
<b>CO2</b>	Recognize the variety, distinctiveness, and defining characteristics of biological systems.	<b>R</b>
<b>CO3</b>	Understand the significance of biology to human welfare	<b>U</b>
<b>CO4</b>	Consider the key traits and developmental principles of farm animals.	<b>AN</b>
<b>CO5</b>	Promote conservation of the environment and a reduction in the use of experimental animals.	<b>AP</b>

<b>Elective Course-I: Biological Techniques</b>		<b>Subject Code: P22MBE1A</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recognize the basic concepts, categories, and applications of light and electron microscopy.	<b>R</b>
<b>CO2</b>	Describe the fundamental ideas and uses of spectroscopic analytical methods.	<b>E</b>
<b>CO3</b>	Apply chromatographic techniques to the separation of molecules.	<b>AP</b>
<b>CO4</b>	Acquire a thorough understanding of gene cloning, gene transfer, and clone detection techniques.	<b>AN</b>
<b>CO5</b>	Develop useful skills for preparing samples for a variety of analytical techniques.	<b>E</b>
<b>Value added course I: Medical Laboratory Technology</b>		<b>Subject Code: P22MBVAC1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Prepare various solutions required for diagnostic procedures in laboratories.	<b>U</b>
<b>CO2</b>	Conduct immunological tests towards diagnosis of various clinical conditions.	<b>R</b>
<b>CO3</b>	Handle histopathology-based disease diagnosis.	<b>R</b>
<b>CO4</b>	Learn various serology & molecular based diagnostic tests; exposures to automation part of diagnostic laboratories.	<b>U</b>
<b>CO5</b>	Understand the management of biomedical waste and disposing mechanisms.	<b>U</b>
<b>Core Course III: Microbial Physiology and Metabolism</b>		<b>Subject Code: P22MBCC21</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the significance of air microbiology and biogeochemical cycles and their importance.	<b>U</b>
<b>CO2</b>	Describe marine and fresh water microbiota, sewage treatment, and assessment of water quality.	<b>U</b>
<b>CO3</b>	Distinguish liquid and solid waste biodegradation and recycling.	<b>U</b>
<b>CO4</b>	Illustrate microbial association with plant rhizosphere and biofertilizers.	<b>R</b>
<b>CO5</b>	Analyze to control plant diseases.	<b>R</b>
<b>Core Course IV: Medical Microbiology</b>		<b>Subject Code: P22MBCC22</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Explain sophisticated information about human microbial flora features.	<b>E</b>
<b>CO2</b>	Understand medical bacteriology, including morphology, cultural and biochemical properties, pathogenesis, lab diagnosis, prophylaxis, and control.	<b>U</b>
<b>CO3</b>	Recognize medical mycology.	<b>R</b>

<b>CO4</b>	Describe medical virology.	<b>U</b>
<b>CO5</b>	Illustrate medical parasitology and the development of antibiotic-resistant organisms.	<b>R</b>
<b>Core choice Course II: Pharmaceutical Microbiology</b>		<b>Subject Code: P22MBCC2B</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Evaluate a new drug for its antimicrobial property in the laboratory.	<b>AN</b>
<b>CO2</b>	Perform standard sterility testing procedures of pharmaceutical products.	<b>AP</b>
<b>CO3</b>	Prepare and control the quality of pharmaceutical products representing various categories.	<b>E</b>
<b>CO4</b>	Understand the contaminants & spoilage of pharmaceutical products & their prevention.	<b>U</b>
<b>CO5</b>	Recognize the importance of good manufacturing, laboratory & clinical practices as well as the role of animal cell culture in pharmacy industries.	<b>R</b>
<b>Elective Course-II: Microbial Biotechnology</b>		<b>Subject Code: P22MBE2B</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Find out the creation of medicinal compounds and vaccines by microbes.	<b>U</b>
<b>CO2</b>	Analyze the microbial production of commercial goods such as enzymes, antibiotics, and so on.	<b>AN</b>
<b>CO3</b>	Deduce the manufacture of PGPR, biofertilizers, and biocontrol agents.	<b>AN</b>
<b>CO4</b>	Apply plant and algae biotechnology, as well as bioremediation.	<b>AN</b>
<b>CO5</b>	Recognize animal biotechnology and intellectual property rights.	<b>R</b>
<b>Non-Major Elective I: Men and Microbes</b>		<b>Subject Code: P22MBNME1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Know the microbiological field developments and essential components.	<b>U</b>
<b>CO2</b>	Understand the environment, microbiology & human values.	<b>U</b>
<b>CO3</b>	Realize the primary producers' functional and supportive systems.	<b>R</b>
<b>CO4</b>	Comprehend microbes' beneficial & harmful attributes.	<b>R</b>
<b>CO5</b>	Understand the microbial products' importance and their usage in day-to-day life.	<b>U</b>
<b>Core Course IX : Medical Microbiology</b>		<b>Subject Code: P16MB41</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Explain sophisticated information about human microbial flora features	<b>E</b>
<b>CO2</b>	Recognize medical bacteriology, including morphology, cultural and biochemical properties, pathogenesis, lab diagnosis, prophylaxis, and control	<b>R</b>

<b>CO3</b>	Apply medical mycology, including morphology, cultural and biochemical traits, pathogenesis, lab diagnosis, prophylaxis, and control	<b>AP</b>
<b>CO4</b>	Define medical virology, such as morphology, cultural and biochemical features, pathophysiology, laboratory diagnosis, prophylaxis, and control	<b>E</b>
<b>CO5</b>	Development of antibiotic-resistant organisms	<b>E</b>
<b>Core Course X : Bioprocess Technology</b>		<b>Subject Code: P16MB42</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the strategies of strain selection and improvement	<b>U</b>
<b>CO2</b>	Understand the fermentation technology	<b>U</b>
<b>CO3</b>	Formulation and modification of media	<b>R</b>
<b>CO4</b>	Explain fermented foods, food intoxications, food spoilage and sanitation	<b>E</b>
<b>CO5</b>	Discuss legal protection, IPR	<b>E</b>
<b>Elective Course II : Microbial Biotechnology</b>		<b>Subject Code: P16MBE5A</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recognition the creation of medicinal compounds and vaccines by microbes	<b>R</b>
<b>CO2</b>	Research the microbial production of commercial goods such as enzymes, antibiotics, and so on	<b>AN</b>
<b>CO3</b>	Investigate the manufacture of PGPR, biofertilizers, and biocontrol agents	<b>AN</b>
<b>CO4</b>	Investigate plant and algae biotechnology, as well as bioremediation	<b>AN</b>
<b>CO5</b>	Explain animal biotechnology and intellectual property rights	<b>E</b>

A COLLEGE FOR THE FUTURE

## DEPARTMENT OF COMPUTER SCIENCE

### Programme: B.Sc., Computer Science

#### PROGRAMME OUTCOMES (PO)

PO No.	<i>Programme outcomes</i> <i>Upon completion of the B.Sc., Degree Programme, the graduate will be able to</i>
<b>PO1</b>	Identify, formulate and develop solutions to computational challenges.
<b>PO2</b>	Design, implement, and evaluate a computer-based system, process, component, or programme for various applications.
<b>PO3</b>	Formulate models, design and conduct experiments for interpreting data and critical thinking.
<b>PO4</b>	Instill professional behavior, inventive research talents, leadership, and interpersonal skills.
<b>PO5</b>	Use appropriate technical skills and tools necessary for computing practice.
<b>PO6</b>	Develop a professional workforce in the IT industry, as well as improve their understanding and identification of professional and ethical obligations.

#### PROGRAMME SPECIFIC OUTCOMES (PSO)

PSO No.	<i>Programme Specific Outcomes</i> <i>Upon completion of these courses the graduate will be able to</i>
<b>PSO1</b>	Apply the knowledge of using Software tools in the domain of Medical, Social and Industry
<b>PSO2</b>	Acquired the required knowledge in the Hardware and Software aspects of Computer Science domain and the art of programming.
<b>PSO3</b>	Enhance the ability to design and develop software applications.
<b>PSO4</b>	Solve real world problems by selecting appropriate techniques and best logic.
<b>PSO5</b>	Understand, adjust and adapt with the dynamic technical environment for the growth of IT industry.
<b>PSO6</b>	Apply Computer Science techniques to as a member or a leader in a team to arrive conclusions and carryout projects.

## COURSE OUTCOMES (CO)

<b>Core Course I: Programming In C And Data Structures Subject Code:22SCCCS1</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Describe the Basic Concepts of C.	R
CO2	Analyze Input and Output Operations.	An
CO3	Manipulate Array and Strings.	Ap
CO4	Illustrate Structures and Unions.	Ap
CO5	Discover Allocation of Memory using Dynamic Memory.	Ap
CO6	Understand the basic concepts in data structures.	Ap
<b>Allied Course-I : Algebra And Calculus Subject Code:22SCACMM2A</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Solve the problems in theory of equations.	AN
CO2	Apply Cayley Hamilton theorem for finding the inverse of square matrices.	AP
CO3	Describe the basic concepts of differentiation and integration.	E
CO4	Acquire the knowledge about differential equations.	R
CO5	Describe the various types of matrix.	E
CO6	Apply the differentiation and various methods for evaluation of integrals.	AP
<b>Core Course III: Programming In Java Subject Code: 22SCCCS2</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Identify the elements needed for a specific problem.	R
CO2	Use an integrated development for Java programs using Arrays And Strings.	Ap
CO3	Demonstrate the concepts of Packages And Interfaces.	Ap
CO4	Analyze the defects using Exception Handling and Multithreading.	An
CO5	Apply File concepts and Applets in Java Applications.	Ap
CO6	Develop software using Java programming language, (using applet, AWT controls, and JDBC).	U
<b>Allied Course-II : Numerical Analysis and Statistics Subject Code:22SCACMM2B</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Understand algebraic and transcendental equations.	U
CO2	Summarize numerical differentiation.	R
CO3	Evaluate numerical solutions of ODE using various methods.	AN
CO4	Understand the mean median and mode.	U
CO5	Analyze correlation and regression.	AN
CO6	Appreciate the importance of probability of random variables and understand the correlation and regression coefficients.	AP

<b>Allied Course-III : Operations Research</b>		<b>Subject Code:22SCACMM2C</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Expand the formulation of linear programming problems.	<b>E</b>
<b>CO2</b>	Solve transportation problems.	<b>AP</b>
<b>CO3</b>	Deduce the probabilistic inventory problem.	<b>AN</b>
<b>CO4</b>	Solve assignment problems.	<b>AP</b>
<b>CO5</b>	Extend Replacement of equipment that deteriorates gradually.	<b>E</b>
<b>CO6</b>	Understand the basic concepts of TP, AP and Network Problems to develop the problem solving skills.	<b>U</b>
<b>Core Course III:PROGRAMMING IN JAVA</b>		<b>Subject Code: 16SCCCS3</b>
<b>CO No</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Identify the elements needed for a specific problem.	<b>R</b>
<b>CO2</b>	Use an integrated development for Java programs using Arrays And Strings.	<b>Ap</b>
<b>CO3</b>	Demonstrate the concepts of Packages And Interfaces.	<b>Ap</b>
<b>CO4</b>	Analyze the defects using Exception Handling and Multithreading.	<b>An</b>
<b>CO5</b>	Apply File concepts and Applets in Java Applications.	<b>AP</b>
<b>Second Allied Course I:Applied Physics- I</b>		<b>Subject Code:16SACAPH1</b>
<b>CO No</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the elastic nature of materials.	<b>U</b>
<b>CO2</b>	Analyze the expression for young's modules.	<b>AN</b>
<b>CO3</b>	Acquire knowledge of the centre of gravity.	<b>R</b>
<b>CO4</b>	Apply the laws of thermodynamics in thermal conductivity.	<b>AP</b>
<b>CO5</b>	Describe the concepts of interference and diffraction.	<b>E</b>
<b>Non Major Elective I:Personal Investment</b>		<b>Subject Code:16NMECM1A</b>
<b>CO No</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Ability to plan and budget effectively.	<b>R</b>
<b>CO2</b>	Recognize the need to adapt financial planning to changing personal needs as well as changes in the economy and financial environment.	<b>R</b>
<b>CO3</b>	Effectively analyze the comparative merits of buying and renting a home; tax implications; buying, selling, and leasing fundamentals.	<b>AN</b>
<b>CO4</b>	Evaluate various types of credit; understand costs and how to utilize them to the best advantage.	<b>AN</b>
<b>CO5</b>	Evaluate the various types of insurance and relate this information to personal needs.	<b>AN</b>
<b>CO1</b>	Ability to plan and budget effectively.	<b>R</b>

<b>Core Course IV: Database Systems</b>		<b>Subject Code:16SCCCS4</b>
<b>CO No</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Explain about Database Systems and It's Applications.	<b>U</b>
<b>CO2</b>	Distinguish between Relational Model and Relational Algebra Operations.	<b>U</b>
<b>CO3</b>	Describe SQL and Identify the Queries and it's Operations.	<b>R</b>
<b>CO4</b>	Define Relational Languages and It's Types.	<b>An</b>
<b>CO5</b>	Illustrate Relational Database design and it's Features.	<b>An</b>
<b>Second Allied Course III :Applied Physics- III</b>		<b>Subject Code:16SACAPH2</b>
<b>CO No</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Applications of Gauss theorem.	<b>AP</b>
<b>CO2</b>	Describe the types of magnetisms.	<b>E</b>
<b>CO3</b>	Explain Pauli's exclusion principles and quantization of orbits.	<b>E</b>
<b>CO4</b>	Recognize the concepts of nuclear radiations and their properties.	<b>R</b>
<b>CO5</b>	Apply binary subtractions by 1's and 2's complement methods.	<b>Ap</b>
<b>Non Major Elective II:Introduction to Accountancy</b>		<b>Subject Code:16NMECM2A</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Acquire conceptual knowledge of basics of accounting	<b>R</b>
<b>CO2</b>	Identify events that need to be recorded in the accounting records	<b>AP</b>
<b>CO3</b>	Develop the skill of recording financial transactions and preparation of reports in accordance with GAAP	<b>E</b>
<b>CO4</b>	Describe the role of accounting information and its limitations	<b>E</b>
<b>CO5</b>	Equip with the knowledge of accounting process and preparation of final accounts of sole trader	<b>AN</b>
<b>Skill Base Elective -1: Page Maker</b>		<b>Subject Code: 16RSBE4:1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Illustrate Adobe Page Maker 7.0	<b>Ap</b>
<b>CO2</b>	Explain about working of multiple pages.	<b>U</b>
<b>CO3</b>	Demonstrate the concept of graphics and mail merge.	<b>Ap</b>
<b>CO4</b>	Apply advanced graphics concepts Using Mail Merge.	<b>Ap</b>
<b>CO5</b>	Show the working of long publications.	<b>Ap</b>
<b>Core Course V: Data Structures And Algorithms</b>		<b>Subject Code:16SCCCS5</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Explain about Arrays and Sequential Representations.	<b>U</b>
<b>CO2</b>	Discuss about Trees and it's representations.	<b>U</b>



<b>CO3</b>	Define Algorithms and arrange it's Sorting.	<b>R</b>
<b>CO4</b>	Describe Greedy Method and it's Applications.	<b>R</b>
<b>CO5</b>	Discuss about Back Tracking method to Solve the Problems.	<b>Ap</b>

**Core Course VI: Operating Systems Subject Code:16SCCCS6**

<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recognize the Concept of Operating Systems.	<b>R</b>
<b>CO2</b>	Describe various memory management techniques.	<b>R</b>
<b>CO3</b>	Criticize various concepts of Job Scheduling and Process Scheduling.	<b>An</b>
<b>CO4</b>	Analyze the disk scheduling algorithms for efficient utilization.	<b>An</b>
<b>CO5</b>	Manipulate Management and Organization of Files and Access Control Verification Module.	<b>Ap</b>

**Core Course VII:Digital Electronics And Microprocessor Subject Code: 16SCCCS7**

<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Classify the concepts of Number System and Binary Codes.	<b>U</b>
<b>CO2</b>	Review the Fundamental concept of Boolean Algebra and Boolean Functions.	<b>U</b>
<b>CO3</b>	Analyze various Combinational Logic Circuits and Sequential Logic Circuits.	<b>An</b>
<b>CO4</b>	Discover the Evolution Process of Microprocessor and Microcomputers.	<b>Ap</b>
<b>CO5</b>	Define the Intel 8085 Instruction.	<b>R</b>

**Major Based Elective-I:Software Engineering Subject Code:16SMBECS1:2**

<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Demonstrate software engineering process with models and requirements.	<b>R</b>
<b>CO2</b>	Discuss Software requirements analysis modeling approaches with real time software design.	<b>U</b>
<b>CO3</b>	Illustrate object oriented concepts with user interface models .	<b>Ap</b>
<b>CO4</b>	Prepare software coding and software testing and maintenance.	<b>Ap</b>
<b>CO5</b>	Differentiate web engineering and social computing.	<b>U</b>

**Skill Based Elective II:Corel Draw Subject Code:16RSBE4:2**

<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Define corel draw basics.	<b>R,U</b>
<b>CO2</b>	Discuss about drawing and selecting concepts.	<b>U</b>
<b>CO3</b>	Manipulate working with text in corel draw.	<b>Ap</b>
<b>CO4</b>	Practice working with images in detail.	<b>Ap</b>
<b>CO5</b>	Prepare pagelayout and background.	<b>Ap</b>

<b>Skill Base Elective-III: Dream Weaver</b>		<b>Subject Code: 16RSBE4:3</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Arrange the Dream Weaver Websites.	<b>R</b>
<b>CO2</b>	Explain about WebPages, Frames and Frame sets.	<b>U</b>
<b>CO3</b>	Compute CSS.	<b>Ap</b>
<b>CO4</b>	List Out Templates and Show the Flash Contents.	<b>Ap</b>
<b>CO5</b>	Analyze the JavaScript and Finalize the Site.	<b>An</b>
<b>Core Course VIII:Computer Networks</b>		<b>Subject Code: 16SCCCS8</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Illustrate the OSI Model and Physical Layer.	<b>Ap</b>
<b>CO2</b>	Discover Data Link Layer And Wireless Networks.	<b>Ap</b>
<b>CO3</b>	Demonstrate the basic understanding of network layer, routing principles,IPv6	<b>Ap</b>
<b>CO4</b>	Summarize the concept of Transport Layer in TCP, UDP.	<b>U</b>
<b>CO5</b>	Describe basic concepts of Application Layer in HTTP, FTP, DNS.	<b>R</b>
<b>Core Course IX: Programming In Php</b>		<b>Subject Code:16SCCCS9</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Describe essential of PHP.	<b>R</b>
<b>CO2</b>	Illustrate Functions and Reading Data in Web Pages.	<b>Ap</b>
<b>CO3</b>	Recognize Object Oriented Programming And Advanced Object Oriented Programming.	<b>R</b>
<b>CO4</b>	Operate Various File Handling, Databases', Sessions, Cookies And FTP.	<b>Ap</b>
<b>CO5</b>	Apply Advanced Ajax Drawing Images on the Server.	<b>Ap</b>
<b>Major Based Elective -II: Cloud Computing</b>		<b>Subject Code: 16SMBECS2:2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Describe cloud computing types and working.	<b>R,U</b>
<b>CO2</b>	Indicate cloud computing architecture with virtualization.	<b>U</b>
<b>CO3</b>	Illustrate data storage and cloud computing and cloud services.	<b>Ap</b>
<b>CO4</b>	Discuss about cloud computing security and cloud tools.	<b>U</b>
<b>CO5</b>	Discover cloud applications and cloud services.	<b>U</b>

**DEPARTMENT OF  
COMPUTER SCIENCE AND COMPUTER APPLICATION  
Programme: M.Sc., Computer Science**

**PROGRAMME OUTCOMES (PO)**

PO No.	Programme outcomes <i>Upon completion of the M.Sc., Degree Programme, the graduate will be able to</i>
<b>PO1</b>	Solidify the computing principles to apply for one's own work, as a member and leader in a team, to manage projects.
<b>PO2</b>	Get technology-oriented knowledge as well as the capacity to generate innovative solutions.
<b>PO3</b>	Apply computer science theory and software development principles to build computing-based solutions and improve programming abilities in learners by utilizing computer science technical knowledge.
<b>PO4</b>	Provide chances for the inter-disciplinary development of technical documentation and presentation abilities, as well as industry-institute contacts.
<b>PO5</b>	Use contemporary computer platforms, software development tools, and software systems.
<b>PO6</b>	Assist in the development of successful initiatives. Develop your professional and social ethical skills.

**PROGRAMME SPECIFIC OUTCOMES (PO)**

PSO No.	Programme Specific Outcomes <i>Upon completion of these courses the graduate will be able to</i>
<b>PSO1</b>	Recognize the principles of relational database management, including the implementation of database systems, query languages, and database design.
<b>PSO2</b>	Apply algorithmic principles, and computer science theory in the design of Computer-based systems.
<b>PSO3</b>	Utilizing client- and server-side technologies as well as web design fundamentals create modern web applications.
<b>PSO4</b>	Develop technical and managerial skills needed to be an effective leader as an entrepreneur or in a software concern.
<b>PSO5</b>	Understand the professional, ethical, legal, security and social issues and responsibilities.
<b>PSO6</b>	Apply the knowledge of GUI and Database programming to develop effective software solutions needed for the government organizations and industrial areas.

## COURSE OUTCOMES (CO)

<b>Core Course I: Mathematical Foundation for Computer Science Subject Code: P22CSCC11</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Apply the basis of the mathematical applications.	<b>AP</b>
<b>CO2</b>	Apply iterative methods (Gauss Jordan, Gauss Elimination and Jacobi) to solve systems of linear equations.	<b>AP</b>
<b>CO3</b>	Understand Propositions, tautologies and inference rules.	<b>U</b>
<b>CO4</b>	Describe sets and operations on sets.	<b>E</b>
<b>CO5</b>	Formulate problems and apply testing of hypothesis.	<b>R</b>
<b>Core Course II: Problem Solving using Python and R Subject Code: P22CSCC12</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Formulate Python programs using Python data structures.	<b>R</b>
<b>CO2</b>	Develop object oriented programs in Python.	<b>E</b>
<b>CO3</b>	Manipulate files using Python.	<b>AP</b>
<b>CO4</b>	Apply the Python libraries NumPy and Pandas for problem solving.	<b>AP</b> <b>AN</b>
<b>CO5</b>	Produce R programs for data visualization.	<b>U</b>
<b>Core Choice Course I: Web Technologies Subject Code: P22CSCC1B</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Describe the fundamentals of Internet Basics.	<b>E</b>
<b>CO2</b>	Operate fundamental skills on Java Script.	<b>AP</b>
<b>CO3</b>	Apply markup languages in web pages.	<b>AP</b>
<b>CO4</b>	Review of JSP Fundamentals.	<b>R</b>
<b>CO5</b>	Demonstrate a connection to Microsoft SQL& MS-Access Database.	<b>E</b>
<b>Core Elective – I: Web Services Subject Code: P22CSE1A</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the design principles and application of SOAP and REST based web services.	<b>U</b>
<b>CO2</b>	Understand XML concepts.	<b>U</b>
<b>CO3</b>	Design collaborating web services according to a specification.	<b>AP</b>
<b>CO4</b>	Apply multiple web services in a realistic business scenario.	<b>AP</b>
<b>CO5</b>	Manipulate industry standard open source tools such as Apache Axis2, Tomcat, in web services.	<b>AP</b>
<b>Core Course III: Advanced Database Management System Subject Code: P22CSCC21</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Revise the components, functions and various database Design techniques used for modeling the databases management system.	<b>R</b>

<b>CO2</b>	Examine the clauses and functions of SQL and write optimal queries in the above languages.	<b>AN</b>
<b>CO3</b>	Design entity-relationship diagrams to represent simple Database application scenarios.	<b>AP</b>
<b>CO4</b>	Analyze the concept of transaction processing, concurrent transaction processing and recovery procedures.	<b>AN</b>
<b>CO5</b>	Employ the NoSQL database concepts.	<b>AP</b>
<b>Core Course IV: Compiler Design</b>		<b>Subject Code: P22CSCC22</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the fundamentals of a compiler.	<b>U</b>
<b>CO2</b>	Acquire knowledge about the context-free grammars and various parsing techniques.	<b>R</b>
<b>CO3</b>	Understand the lexical analyzer and syntax analyzer of Compiler.	<b>U</b>
<b>CO4</b>	Understand the types and sources of errors, from the compilers perspective.	<b>U</b>
<b>CO5</b>	Realize the procedures and principles involved in the machine code generation.	<b>R</b>
<b>Core Choice Course II: Distributed Technologies</b>		<b>Subject Code: P22CSCC2A</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Compare the architectures of distributed systems.	<b>E</b>
<b>CO2</b>	Differentiate the technologies associated with presentation and interaction services.	<b>AN</b>
<b>CO3</b>	Develop applications with components.	<b>E</b>
<b>CO4</b>	Recognize the techniques for creating ASP.NET pages using a web server and HTML controls.	<b>R</b>
<b>CO5</b>	Familiar with the disconnected data access technology in ADO.NET.	<b>R</b>
<b>Elective Course II: Open Source Systems</b>		<b>Subject Code: P22CSE2B</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recognize the value of open source and how it can be applied to effective manure.	<b>R</b>
<b>CO2</b>	Define Linux.	<b>R</b>
<b>CO3</b>	Configure Hardware using open source tools	<b>E</b>
<b>CO4</b>	Acquire experience with GNU Libraries.	<b>AP</b>
<b>CO5</b>	Understand various system software tools.	<b>U</b>
<b>Non-major Elective Course I: Fundamentals of Information Technology</b>		<b>Subject Code: P22CSNME1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recognize the latest trends in information technology.	<b>R</b>
<b>CO2</b>	Understand the fundamentals of computers.	<b>U</b>
<b>CO3</b>	Define networks.	<b>E</b>
<b>CO4</b>	Acquire knowledge about different software	<b>AN</b>
<b>CO5</b>	Understand Internet basics.	<b>U</b>

<b>Core Course VII: Data Mining &amp; Warehousing</b>		<b>Subject Code:P16cs31</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Identify the basic concepts of Data mining and data warehousing.	<b>R</b>
<b>CO2</b>	Illustrate the Data Processing.	<b>AP</b>
<b>CO3</b>	Characterize the kinds of patterns that can be discovered by association rule mining and clustering.	<b>AN</b>
<b>CO4</b>	Demonstrate the process of Data warehousing.	<b>AP</b>
<b>CO5</b>	Manipulate the data warehouse.	<b>AP</b>
<b>Core Course VIII: COMPILER DESIGN</b>		<b>Subject Code:P16CS32</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Differentiate compilers and Simple one pass compilers.	<b>U</b>
<b>CO2</b>	Analyze the Symbol tables and syntax analysis.	<b>AN</b>
<b>CO3</b>	Define Syntax.	<b>AN</b>
<b>CO4</b>	Discover the Run time environment.	<b>E</b>
<b>CO5</b>	Operate Code generation and code optimization.	<b>AP</b>
<b>Elective Course III: PARALLEL PROCESSING</b>		<b>Subject Code:P16CSE3A</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Describe parallel processing.	<b>R</b>
<b>CO2</b>	Differentiate Memory in Input and output subsystems.	<b>AP</b>
<b>CO3</b>	Illustrate the Principles of pipelining and vector processing.	<b>AN</b>
<b>CO4</b>	Apply Vectorization and optimization methods.	<b>AP</b>
<b>CO5</b>	Use of Multiprocessors architecture and Scheduling Strategies.	<b>AP</b>
<b>Elective Course IV: NETWORK SECURITY</b>		<b>Subject Code: P16CSE4A</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Define Symmetric ciphers.	<b>R</b>
<b>CO2</b>	Manipulate Symmetric ciphers.	<b>AP</b>
<b>CO3</b>	Illustrate Network Security Practices.	<b>AN</b>
<b>CO4</b>	Operate IP Security and Web Security.	<b>AP</b>
<b>CO5</b>	Analyze System security.	<b>AN</b>
<b>Core Course IX: CLOUD COMPUTING</b>		<b>Subject Code:P16CS41</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Explain the fundamentals and essentials of Cloud Computing.	<b>U</b>
<b>CO2</b>	Manipulate the infrastructure as a service in Virtual Machine Provisioning and Migration Services.	<b>AP</b>
<b>CO3</b>	Illustrate the Aneka Integration of private and public clouds.	<b>AP</b>
<b>CO4</b>	Apply TSystem cloud based solutions for business.	<b>AN</b>
<b>CO5</b>	Analyze Architecture of Federated cloud computing.	<b>R</b>

<b>Core Course X: WIRELESS SENSOR NETWORK</b>		<b>Subject Code:P16CS42</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Apply wireless sensor networks and its technologies	<b>AP</b>
<b>CO2</b>	Analyze the Architectures of wireless sensor networks.	<b>AN</b>
<b>CO3</b>	Operate Networking Sensors.	<b>AP</b>
<b>CO4</b>	Define Topology Control.	<b>R</b>
<b>CO5</b>	Practice Sensor Network platforms and Tools.	<b>AP</b>
<b>Elective Course V: BIG DATA ANALYTICS</b>		<b>Subject Code:P16CSE5A</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Define the fundamentals of big data.	<b>U</b>
<b>CO2</b>	Describe Big Data Analytics.	<b>R,U</b>
<b>CO3</b>	Examine the Big data technologies and databases.	<b>AP</b>
<b>CO4</b>	Illustrate Hadoop foundation for analytics.	<b>AN</b>
<b>CO5</b>	Demonstrate Hadoop Map reduce and YARN Framework.	<b>AP</b>

## DEPARTMENT OF COMPUTER APPLICATION

**Programme: BCA**

### PROGRAMME OUTCOMES (PO)

<b>PO No.</b>	<b>Programme outcomes</b> <i>Upon completion of the BCA Degree Programme, the graduate will be able to</i>
<b>PO1</b>	Analyze a given problem and develop an algorithm to solve it.
<b>PO2</b>	Analyze and synthesize computing systems in order to address issues in computer applications using quantitative and qualitative approaches.
<b>PO3</b>	Evaluate the arithmetic operations and mathematical library functions in programming languages.
<b>PO4</b>	Acquire the ability to create, evaluate, and build upon programming and web development principles.
<b>PO5</b>	Develop various real time applications using the latest technologies and programming languages.
<b>PO6</b>	Recognize the possibilities for advancement and professional growth in all areas, as well as the need to assure quality in all aspects.

### PROGRAMME SPECIFIC OUTCOMES (PSO)

<b>PSO No.</b>	<b>Programme Specific Outcomes</b> <i>Upon completion of these courses the graduate will be able to</i>
<b>PSO1</b>	Understand the basic concepts to develop C programs.
<b>PSO2</b>	Solve data problems related to data structures.
<b>PSO3</b>	Identify members of a class and to implement them.
<b>PSO4</b>	Develop simple programs with multiple threads.
<b>PSO5</b>	Apply applets in Java programs.
<b>PSO6</b>	Enhance the logical and analytical thinking to understand the computational systems.

## COURSE OUTCOMES (CO)

<b>Core Course I: Programming In C And Data Structures Subject Code:22SCCCA1</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Describe the Basic Concepts of C.	R
CO2	Analyze Input and Output Operations.	An
CO3	Manipulate Array and Strings.	Ap
CO4	Illustrate Structures and Unions.	Ap
CO5	Discover Allocation of Memory using Dynamic Memory.	Ap
CO6	Understand the basic concepts in data structures.	Ap
<b>Allied Course-I : Algebra And Calculus Subject Code:22SCACMM2A</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Solve the problems in theory of equations.	AN
CO2	Apply Cayley Hamilton theorem for finding the inverse of square matrices.	AP
CO3	Describe the basic concepts of differentiation and integration.	E
CO4	Acquire the knowledge about differential equations.	R
CO5	Describe the various types of matrix.	E
CO6	Apply the differentiation and various methods for evaluation of integrals.	AP
<b>Core Course III: Programming In Java Subject Code: 22SCCCA2</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Identify the elements needed for a specific problem.	R
CO2	Use an integrated development for Java programs using Arrays And Strings.	Ap
CO3	Demonstrate the concepts of Packages And Interfaces.	Ap
CO4	Analyze the defects using Exception Handling and Multithreading.	An
CO5	Apply File concepts and Applets in Java Applications.	Ap
CO6	Develop software using Java programming language, (using applet, AWT controls, and JDBC).	U
<b>Allied Course-II : Numerical Analysis and Statistics Subject Code:22SCACMM2B</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Understand algebraic and transcendental equations.	U
CO2	Summarize numerical differentiation.	R
CO3	Evaluate numerical solutions of ODE using various methods.	AN
CO4	Understand the mean median and mode.	U
CO5	Analyze correlation and regression.	AN
CO6	Appreciate the importance of probability of random variables and understand the correlation and regression coefficients.	AP



<b>Allied Course-III : Operations Research</b>		<b>Subject Code:22SCACMM2C</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Expand the formulation of linear programming problems.	<b>E</b>
<b>CO2</b>	Solve transportation problems.	<b>AP</b>
<b>CO3</b>	Deduce the probabilistic inventory problem.	<b>AN</b>
<b>CO4</b>	Solve assignment problems.	<b>AP</b>
<b>CO5</b>	Extend Replacement of equipment that deteriorates gradually.	<b>E</b>
<b>CO6</b>	Understand the basic concepts of TP, AP and Network Problems to develop the problem solving skills.	<b>U</b>
<b>Core Course III:PROGRAMMING IN JAVA</b>		<b>Subject Code:16SCCCA3</b>
<b>CO No</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Identify the elements needed for a specific problem.	<b>R</b>
<b>CO2</b>	Use an integrated development for Java programs using Arrays And Strings.	<b>Ap</b>
<b>CO3</b>	Demonstrate the concepts of Packages And Interfaces.	<b>Ap</b>
<b>CO4</b>	Analyze the defects using Exception Handling and Multithreading.	<b>An</b>
<b>CO5</b>	Apply File concepts and Applets in Java Applications.	<b>AP</b>
<b>Second Allied Course I: Principles of Accounting</b>		<b>Subject Code: 16SACA0B1</b>
<b>CO No</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the concepts of Accounting.	<b>U</b>
<b>CO2</b>	Describe the Final Accounts of Sole Traders.	<b>E</b>
<b>CO3</b>	Analyze Three Column Cash Book Bank Reconciliation statement.	<b>AN</b>
<b>CO4</b>	Differentiate Erros disclosed by Trial Balance and Not disclosed by Trial Balance.	<b>AP</b>
<b>CO5</b>	Identify Bills of Exchange, Renewal of Bill and Retiring of Bills	<b>AN</b>
<b>Non Major Elective I:Personal Investment</b>		<b>Subject Code:16NMECM1A</b>
<b>CO No</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Ability to plan and budget effectively.	<b>R</b>
<b>CO2</b>	Recognize the need to adapt financial planning to changing personal needs as well as changes in the economy and financial environment.	<b>R</b>
<b>CO3</b>	Effectively analyze the comparative merits of buying and renting a home; tax implications; buying, selling, and leasing fundamentals.	<b>AN</b>
<b>CO4</b>	Evaluate various types of credit; understand costs and how to utilize them to the best advantage.	<b>AN</b>
<b>CO5</b>	Evaluate the various types of insurance and relate this information to personal needs.	<b>AN</b>

<b>Core Course IV: Database Systems</b>		<b>Subject Code:16SCCCA4</b>
<b>CO No</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Explain about Database Systems and It's Applications.	<b>U</b>
<b>CO2</b>	Distinguish between Relational Model and Relational Algebra Operations.	<b>U</b>
<b>CO3</b>	Describe SQL and Identify the Queries and its Operations.	<b>R</b>
<b>CO4</b>	Define Relational Languages and It's Types.	<b>An</b>
<b>CO5</b>	Illustrate Relational Database design and it's Features.	<b>An</b>
<b>Second Allied Course II:Computer Application in Bussiness</b>		<b>Subject Code: 16SACA0B2</b>
<b>CO No</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Remember basic computer skills, such as word document creation, business letter writing, mail merge, and document saving and closing.	<b>R</b>
<b>CO2</b>	Summarize MS Excel, including work sheet editing and formatting, as well as the creation and formatting of many forms of charts.	<b>U</b>
<b>CO3</b>	Prepare the tally setting and company creation, as well as voucher entry.	<b>AP</b>
<b>CO4</b>	Prepare the inventory accounts and usage of stocks in vouchers entry.	<b>AP</b>
<b>CO5</b>	Examine basic understanding of daybooks, trial balance ratios, fund flow cash flow statements, and bank reconciliation statements.	<b>AP</b>
<b>Second Allied Course III: Organizational Behavior</b>		<b>SubjectCode: 16SACA0B3</b>
<b>CO No</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Recognize the various models of organizational behavior.	<b>R</b>
<b>CO2</b>	Expose the concepts of motivation and group dynamics.	<b>U</b>
<b>CO3</b>	Illustrate the leadership qualities of effective leadership.	<b>E</b>
<b>CO4</b>	Definition of authority morale.	<b>E</b>
<b>CO5</b>	Acquire interpersonal skills.	<b>R</b>
<b>Non Major Elective II:Introduction to Accountancy</b>		<b>Subject Code: 16NMECM2A</b>
<b>CO No</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Acquire conceptual knowledge of basics of accounting	<b>R</b>
<b>CO2</b>	Identify events that need to be recorded in the accounting records	<b>AP</b>
<b>CO3</b>	Develop the skill of recording financial transactions and preparation of reports in accordance with GAAP	<b>E</b>
<b>CO4</b>	Describe the role of accounting information and its limitations	<b>E</b>
<b>CO5</b>	Equip with the knowledge of accounting process and preparation of final accounts of sole trader	<b>AN</b>

<b>Skill Base Elective -1: Page Maker</b>		<b>Subject Code: 16RSBE4:1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Illustrate Adobe Page Maker 7.0	Ap
CO2	Explain about working of multiple pages.	U
CO3	Demonstrate the concept of graphics and mail merge.	Ap
CO4	Apply advanced graphics concepts Using Mail Merge.	Ap
CO5	Show the working of long publications.	Ap
<b>Core Course V: Data Structures And Algorithms</b>		<b>Subject Code:16SCCCA5</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Explain about Arrays and Sequential Representations.	U
CO2	Discuss about Trees and it's representations.	U
CO3	Define Algorithms and arrange it's Sorting.	R
CO4	Describe Greedy Method and it's Applications.	R
CO5	Discuss about Back Tracking method to Solve the Problems.	Ap
<b>Core Course VI: Operating Systems</b>		<b>Subject Code:16SCCCA6</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Recognize the Concept of Operating Systems.	R
CO2	Describe various memory management techniques.	R
CO3	Criticize various concepts of Job Scheduling and Process Scheduling.	An
CO4	Analyze the disk scheduling algorithms for efficient utilization.	An
CO5	Manipulate Management and Organization of Files and Access Control Verification Module.	Ap
<b>Elective Course VII: Digital Computer Fundamentals</b>		<b>Subject Code :16SCCCA7</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Explain Number System and Codes.	U
CO2	Apply Logic Gates and Circuits in Boolean Algebra.	Ap
CO3	Illustrate Boolean Algebra.	Ap
CO4	Operate Combinational Logic Circuits.	Ap
CO5	Identify Sequential Logic Circuits With Counter And Shift Registers.	R
<b>Major Based Elective-I:Software Engineering</b>		<b>Subject Code:16SMBECA1:2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Demonstrate software engineering process with models and requirements.	R
CO2	Discuss Software requirements analysis modeling approaches with real time software design.	U
CO3	Illustrate object oriented concepts with user interface models .	Ap
CO4	Prepare software coding and software testing and maintenance.	Ap
CO5	Differentiate web engineering and social computing.	U

<b>Skill Based Elective II:Corel Draw</b>		<b>Subject Code:16RSBE4:2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Define corel draw basics.	R,U
CO2	Discuss about drawing and selecting concepts.	U
CO3	Manipulate working with text in corel draw.	Ap
CO4	Practice working with images in detail.	Ap
CO5	Prepare pagelayout and background.	Ap
<b>Skill Base Elective-III: Dream Weaver</b>		<b>Subject Code: 16RSBE4:3</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Arrange the Dream Weaver Websites.	R
CO2	Explain about WebPages, Frames and Frame sets.	U
CO3	Compute CSS.	Ap
CO4	List Out Templates and Show the Flash Contents.	Ap
CO5	Analyze the JavaScript and Finalize the Site.	An
<b>Core Course VIII:Computer Networks</b>		<b>Subject Code: 16SCCCA8</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Illustrate the OSI Model and Physical Layer.	Ap
CO2	Discover Data Link Layer And Wireless Networks.	Ap
CO3	Demonstrate the basic understanding of network layer, routing principles,IPv6	Ap
CO4	Summarize the concept of Transport Layer in TCP, UDP.	U
CO5	Describe basic concepts of Application Layer in HTTP, FTP, DNS.	R
<b>Core Course IX: Programming In PHP</b>		<b>Subject Code:16SCCCA9</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Describe essential of PHP.	R
CO2	Illustrate Functions and Reading Data in Web Pages.	Ap
CO3	Recognize Object Oriented Programming And Advanced Object Oriented Programming.	R
CO4	Operate Various File Handling, Databases', Sessions, Cookies And FTP.	Ap
CO5	Apply Advanced Ajax Drawing Images on the Server.	Ap
<b>Major Based Elective -II: Mobile Computing</b>		<b>Subject Code:16SMBECA2:1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Define mobile communications and mobility management.	R
CO2	Describe mobile systems and smart systems.	R,U
CO3	Classify GSM and GPRS service.	U
CO4	Illustrate Data synchronization in mobile computing systems.	Ap
CO5	Sketch Mobile operating systems.	Ap

**DEPARTMENT OF COMMERCE****Programme: B.Com.,****PROGRAMME OUTCOMES (PO)**

<b>PO No.</b>	<b>Programme outcomes</b> <i>Upon completion of the B.Com., Degree Programme, the graduate will be able to</i>
<b>PO1</b>	Apply accounting concepts and methods to interpret financial statements for evaluating the financial position and performance of organizations.
<b>PO2</b>	Face the obstacles of today's commercial activity.
<b>PO3</b>	Learn about current taxation policies and how to use computer software tools.
<b>PO4</b>	Find fresh business possibilities and launch a new venture.
<b>PO5</b>	Maintain ethics and take responsibility for people, business, society, and the environment.

**PROGRAMME SPECIFIC OUTCOMES (PSO)**

<b>PSO No.</b>	<b>Programme Specific Outcomes</b> <i>Upon completion of these courses the graduate will be able to</i>
<b>PSO1</b>	Understand the concepts and conventions of financial accounting.
<b>PSO2</b>	Develop knowledge in marketing research and recent trends in marketing.
<b>PSO3</b>	Examine and practice the suitable leadership pattern in organization.
<b>PSO4</b>	Analyze the income and expenditure pattern of national income.
<b>PSO5</b>	Apply the values in thirukural to be peaceful, dutiful and responsible in family and society.
<b>PSO6</b>	Handle the insolvency accounts and statement of affairs.

**COURSE OUTCOMES (CO)**

<b>Core Course I: Principles of Accountancy</b>		<b>Subject Code: 22CCCCM1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand accounting principles, the double entry system, and the bank reconciliation statement.	<b>U</b>
<b>CO2</b>	Summarize the final accounting, including adjustment entries and error correction.	<b>U</b>
<b>CO3</b>	Identify the non-profit organization accounts and the bill of exchange's average due date.	<b>R</b>
<b>CO4</b>	Prepare the consignments and joint venture accounts	<b>AP</b>
<b>CO5</b>	Analyze the single entry system and depreciation methods.	<b>AN</b>
<b>Core Course II: Marketing</b>		<b>Subject Code:22CCCCM2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the concept of market, role of marketing in economic development and ISO and AGMARK, ISI.	<b>U</b>
<b>CO2</b>	Analyze the concept buyer behavior and buying motive and product mix.	<b>AN</b>
<b>CO3</b>	Understand the pricing objectives and channels of distribution.	<b>U</b>

<b>CO4</b>	Categorize sales promotion, sales promotion mix and personal selling.	<b>U</b>
<b>CO5</b>	Analyze the marketing information system, marketing research and E-business, telemarketing.	<b>AN</b>
<b>Allied Course I: Management Concepts</b>		<b>Subject Code: 22CFACCM1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the Evolution and theory of Management.	<b>U</b>
<b>CO2</b>	Develop the students to take decisions in various fields.	<b>AN</b>
<b>CO3</b>	Describe various organization structures and its responsibility.	<b>E</b>
<b>CO4</b>	Develop the flow of communication among the people.	<b>U</b>
<b>CO5</b>	Examine and practice the suitable leadership pattern in organization.	<b>AP</b>
<b>Core Course III: Business Accounting</b>		<b>Subject Code: 22CCCCM3</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Remember the concept of branch accounts and departmental accounts.	<b>R</b>
<b>CO2</b>	Prepare the higher purchase accounts and installment purchase system.	<b>AP</b>
<b>CO3</b>	Analyze the royalty accounts, self balancing and sectional balancing ledgers.	<b>AN</b>
<b>CO4</b>	Summarize the concept of fire insurance claims for loss of stock	<b>U</b>
<b>CO5</b>	Prepare the insolvency accounts and the statement of assets and liabilities.	<b>AP</b>
<b>Core Course IV: Business tools for decision making</b>		<b>Subject Code: 22CCCCM4</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Remember the arithmetic mean, median, mode, geometric mean, and harmonic mean, as well as bar and pie diagrams.	<b>R</b>
<b>CO2</b>	Identify the concept measurement of skewness.	<b>R</b>
<b>CO3</b>	Prepare the correlation and regression analysis.	<b>AP</b>
<b>CO4</b>	Analyze the concept of time series.	<b>AN</b>
<b>CO5</b>	Explain the index numbers and family budget method.	<b>E</b>
<b>Allied Course II: Business Economics</b>		<b>Subject Code: 22CFACCM2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the concept of micro macro economics relating to business.	<b>U</b>
<b>CO2</b>	Identify the concept of law of demand and elasticity of demand, consumer's equilibrium.	<b>R</b>
<b>CO3</b>	Gather information on production factors and Isoquant analysis.	<b>U</b>
<b>CO4</b>	Understand the monopoly duopoly, oligopoly, and monopolistic markets, and summarize the concept of the law of supply.	<b>U</b>
<b>CO5</b>	Examine the country's revenues and fiscal policy method.	<b>AN</b>

<b>Core Course V: Partnership Accounts</b>		<b>Subject Code:16CCCCM5</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the concept of partnership deed, and distribution of profits.	<b>U</b>
<b>CO2</b>	Gather the concept of admission of partner and treatment of goodwill.	<b>U</b>
<b>CO3</b>	Prepare the account of retirement of partner, and calculation of gaining ratio.	<b>AP</b>
<b>CO4</b>	Prepare the dissolution of partners' accounts and realization accounts.	<b>AP</b>
<b>CO5</b>	Analyze the amalgamation of firms and compute the purchase consideration	<b>AN</b>
<b>Core Course VI: Business law</b>		<b>Subject Code:16CCCCM6</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Remember the concept of mercantile law and contracts void agreement	<b>R</b>
<b>CO2</b>	Understand the performance of contracts and discharge of contracts, quasi contracts.	<b>U</b>
<b>CO3</b>	Summarize the concept of guarantee, pledge and agency.	<b>U</b>
<b>CO4</b>	Gather the law of sale of goods, condition and warranty.	<b>U</b>
<b>CO5</b>	Analyze the law of negotiable instruments	<b>AN</b>
<b>Allied Course III: Business Communication</b>		<b>Subject Code:16CACCM1C</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Define the concept of business communication, business letter and barriers to communication	<b>R</b>
<b>CO2</b>	Summarize the concept enquiry and reply.	<b>U</b>
<b>CO3</b>	Understand the collection letters such as sales letters circular letters.	<b>U</b>
<b>CO4</b>	Prepare the report writing and type's reports like business report.	<b>AP</b>
<b>CO5</b>	Analyze the modern communication methods fax, e-mail voicemail sms internet,	<b>AN</b>
<b>Core Course VII: Cost Accounting</b>		<b>Subject Code:16CCCCM7</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Define the concept of cost accounting and cost sheet.	<b>R</b>
<b>CO2</b>	Understand the concept of material cost and abc analysis	<b>U</b>
<b>CO3</b>	Understand the labour cost and labour turnover	<b>U</b>
<b>CO4</b>	Gather the knowledge about overheads and cost reconciliation statement.	<b>R</b>
<b>CO5</b>	Examine the job costing, contract costing, and process costing operating costing concepts.	<b>AP</b>

<b>Core Course VIII: Business tools for decision making</b>		<b>Subject Code:16CCCCM8</b>
<b>CO NO</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Remember the arithmetic mean, median, mode, geometric mean, and harmonic mean, as well as bar and pie diagrams.	<b>R</b>
<b>CO2</b>	Identify the concept measurement of skewness	<b>R</b>
<b>CO3</b>	Prepare the correlation and regression analysis.	<b>AP</b>
<b>CO4</b>	Analyze the concept of time series.	<b>AN</b>
<b>CO5</b>	Explain the index numbers and family budget method.	<b>AN</b>
<b>Allied Course IV: Company Law</b>		<b>Subject Code:16CACCM1D</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Define the terms joint stock company and corporate formation.	<b>R</b>
<b>CO2</b>	Gather information on the memorandum and articles of incorporation, as well as the statement in lieu of prospectus.	<b>U</b>
<b>CO3</b>	Understand the concept of shares, voting rights of shareholders, and company borrowing power.	<b>U</b>
<b>CO4</b>	Organize the annual meeting of the corporation, as well as the regular and special resolutions.	<b>AN</b>
<b>CO5</b>	Analyze the knowledge about the company winding up and modes of winding up.	<b>AN</b>
<b>Non Major Elective II: Banking Practices</b>		<b>Subject Code:16NMEBB3</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand of the basic concepts in banking.	<b>U</b>
<b>CO2</b>	Acquaint the theoretical and legal concepts of banking in India.	<b>AN</b>
<b>CO3</b>	Attain the competencies required for a career in banking services.	<b>R</b>
<b>CO4</b>	Classification of banks.	<b>U</b>
<b>CO5</b>	Analyze the recent trends in banking services.	<b>AN</b>
<b>Skill Based Elective I :Introduction to office managemem</b>		<b>Subject Code:16RSBE7:1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Identify skills and competencies of an office manager.	<b>U</b>
<b>CO2</b>	Describe different forms of organizations.	<b>E</b>
<b>CO3</b>	Develop processes for office operations.	<b>E</b>
<b>CO4</b>	Identify components of office management roles and procedures and team dynamics.	<b>U</b>
<b>CO5</b>	Communicate finding using business software applications.	<b>U</b>
<b>Core Course VII: Corporate Accounting</b>		<b>Subject Code:16CCCCM9</b>
<b>CO NO</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Find more about share applications, allotment of shares and calls, and share forfeiture.	<b>R</b>



<b>CO2</b>	Understand how debentures are issued and redeemed, as well as the processes used.	<b>U</b>
<b>CO3</b>	Summarize their skills of amalgamation, absorption, and external and internal reconstruction.	<b>E</b>
<b>CO4</b>	Prepare the accounts of the holding company and the consolidation balance sheet.	<b>AP</b>
<b>CO5</b>	Examine the financial statements of banks and insurance companies.	<b>AP</b>

**Core Course VIII: Auditing Subject Code:16CCCCM10**

<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Define the procedure of audit and investigation.	<b>R</b>
<b>CO2</b>	Prepare the voucher and personal and impersonal ledgers.	<b>AP</b>
<b>CO3</b>	Understand the concept of valuation and verification of assets and depreciation.	<b>U</b>
<b>CO4</b>	Analyze the rights and liabilities of company auditors and audit reports.	<b>AN</b>
<b>CO5</b>	Analyze the computerize accounting audit.	<b>AN</b>

**Core Course IX: Computer Applications in Business Subject Code:16CCCCM11**

<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Remember basic computer skills, such as word document creation, business letter writing, mail merge, and document saving and closing.	<b>R</b>
<b>CO2</b>	Summarize MS Excel, including work sheet editing and formatting, as well as the creation and formatting of many forms of charts.	<b>U</b>
<b>CO3</b>	Prepare the tally setting and company creation, as well as voucher entry.	<b>AP</b>
<b>CO4</b>	Prepare the inventory accounts and usage of stocks in vouchers entry.	<b>AP</b>
<b>CO5</b>	Examine basic understanding of daybooks, trial balance ratios, fundflow cash flow statements, and bank reconciliation statements.	<b>AP</b>

**Core Course X: Management Accounting Subject Code:16CCCCM1**

<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Identify management accounts and financial statement analysis, as well as ratio analysis.	<b>R</b>
<b>CO2</b>	Gather a fund and cash flow statement in accordance with accounting standard 3.	<b>R</b>
<b>CO3</b>	Prepare a budgetary control statement and learn about different types of budgets.	<b>AP</b>
<b>CO4</b>	Understand that variance analysis and break even analysis are and how to use it.	<b>U</b>
<b>CO5</b>	Analyze the capital budgeting and appraisal methods	<b>AN</b>

<b>Major Based Elective I: Entrepreneurial Development</b>		<b>Subject Code: 16MBECM1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Define the idea of entrepreneurship and women's and rural entrepreneur development.	<b>R</b>
<b>CO2</b>	Gather information on project identification, formulation, and evaluation.	<b>U</b>
<b>CO3</b>	Determine the role of institutions in the growth of entrepreneurs.	<b>AP</b>
<b>CO4</b>	Identify the institution that provides funding to entrepreneurs.	<b>R</b>
<b>CO5</b>	Analyze the services provided to entrepreneurs and the role of the entrepreneur in export and import promotion	<b>AN</b>
<b>Skill Based Elective II: Office Management Tools</b>		<b>Subject Code: 16RSBE7:2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the fundamentals of computer operating systems.	<b>U</b>
<b>CO2</b>	Explore template and formation of documents.	<b>AP</b>
<b>CO3</b>	Describe spreadsheet and worksheet.	<b>E</b>
<b>CO4</b>	Analyze the effects of multimedia.	<b>AP</b>
<b>CO5</b>	Demonstrate accounting machines and other modern office gadgets.	<b>U</b>
<b>Skill Based Elective III: Communication and interpersonal skills</b>		<b>Subject Code: 16RSBE7:3</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Gain information about other individuals through communication.	<b>R</b>
<b>CO2</b>	Build a context of understanding through communication.	<b>U</b>
<b>CO3</b>	Establish and identify when using interpersonal communication	<b>E</b>
<b>CO4</b>	Demonstrate respect for others' viewpoints.	<b>E</b>
<b>CO5</b>	Maintain proper eye contact while communicating interpersonally.	<b>U</b>
<b>Core Course XI: Financial Management</b>		<b>Subject Code: 16CCCCM13</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand financial management and the time worth of money concepts.	<b>U</b>
<b>CO2</b>	Summarize the capital structure concept, as well as the mm approach and traditional approaches.	<b>U</b>
<b>CO3</b>	Explain the concept of leveraging as well as the dividend policy.	<b>AN</b>
<b>CO4</b>	Gather information about working capital management.	<b>U</b>
<b>CO5</b>	Analyze receivable management information and calculate the economic order quantity.	<b>AN</b>

<b>Core Course XII :Income Tax Theory Law and practice Subject Code:16CCCCM14</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Define the terms assessee, preceding year, and assessment year in the context of income tax.	<b>R</b>
<b>CO2</b>	Understand the idea of calculating taxable salary.	<b>U</b>
<b>CO3</b>	Gather information about the property and calculate the gross and net asset values.	<b>U</b>
<b>CO4</b>	Determine the taxable income from business and profession profits and gains.	<b>AP</b>
<b>CO5</b>	Analyze taxable capital gains and become familiar with the direct tax code.	<b>AN</b>
<b>Core Course XIII: Financial Services Subject Code:16CCCCM15</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Find out about the fundamentals of financial services, merchant banking, and SEBI and RBI regulations.	<b>R</b>
<b>CO2</b>	Gather information on the terms hire purchase and leasing.	<b>U</b>
<b>CO3</b>	Estimate the concept of mutual funds and their growth in India.	<b>AP</b>
<b>CO4</b>	Understand all there is to know about venture capital.	<b>U</b>
<b>CO5</b>	Examine the knowledge of factoring, bill discounting, and forfaiting.	<b>AP</b>
<b>Major Based Elective II: Service Marketing Subject Code:16MBECM4</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Define the relevance of service, service marketing, and the reasons for India's growing service sector.	<b>R</b>
<b>CO2</b>	Understand the concept of a service product and how to set a price for it.	<b>U</b>
<b>CO3</b>	Summarize the concepts of service location, service promotion, and service branding.	<b>E</b>
<b>CO4</b>	Gather the knowledge about the process of service.	<b>U</b>
<b>CO5</b>	Analyze the importance of service mix and gain knowledge about service industries such as health care, hotels and banking.	<b>AN</b>
<b>Major Based Elective III: Investment Management Subject Code:16MBECM6</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Identify the terms investment and investment process.	<b>R</b>
<b>CO2</b>	Understand the systematic risk and unsystematic risk	<b>U</b>
<b>CO3</b>	Gather the knowledge about bank deposits, and life insurance and tax saving investment.	<b>E</b>
<b>CO4</b>	Understand the time value of money, current money and future money	<b>U</b>
<b>CO5</b>	Analyze the basic knowledge of primary market and secondary market.	<b>AN</b>

## DEPARTMENT OF BUSINESS ADMINISTRATION

### Programme:BBA

#### PROGRAMME OUTCOMES (PO)

<b>PO No.</b>	<b>Programme outcomes</b> <i>Upon completion of the BBA Degree Programme, the graduate will be able to</i>
<b>PO1</b>	Tackle business challenges and use management science to manage knowledge with limited resources.
<b>PO2</b>	Use analytical research methods to identify and address management challenges.
<b>PO3</b>	Implement new ideas, take advantage of possibilities, and shape modernism in the workplace.
<b>PO4</b>	Make important managerial choices based on virtuous principles under high-stress conditions.
<b>PO5</b>	Be a successful member or doyen in opposing teams, strategic judgements.
<b>PO6</b>	Reach out to connections who are well-liked by stakeholders.

#### PROGRAMME SPECIFIC OUTCOMES (PSO)

<b>PSO No.</b>	<b>Programme Specific Outcomes</b> <i>Upon completion of these courses the graduate will be able to</i>
<b>PSO1</b>	Acquire adequate knowledge through principles, theory and models of business management, accounting and marketing.
<b>PSO2</b>	Demonstrate proficiency for business communication for effective and professional business management.
<b>PSO3</b>	Develop entrepreneurial skills to become an entrepreneur.
<b>PSO4</b>	Analyze the management principles in the situations pertaining to global business world.
<b>PSO5</b>	Apply the knowledge about management in the real life business situation.
<b>PSO6</b>	Evaluate the performance of public sector in India.

## COURSE OUTCOMES (CO)

<b>Core Course: I Introduction to Management</b>		<b>Subject Code: 22BCCBB1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the complexities associated with management of human resources in the organizations.	<b>U</b>
<b>CO2</b>	Describe the organization hierarchy; authority and responsibility relationships associated with the different levels of Management.	<b>E</b>
<b>CO3</b>	Explain the management evolution which affect future managers.	<b>E</b>
<b>CO4</b>	Apply the knowledge about management in the real life business situation.	<b>AP</b>
<b>CO5</b>	Enhance their managerial abilities and professional skills.	<b>R</b>
<b>Core Course: II Fundamentals of Accounting</b>		<b>Subject Code:22BCCBB2</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the fundamental concepts of accounting.	<b>U</b>
<b>CO2</b>	Recognize the basic knowledge of accounting principles.	<b>R</b>
<b>CO3</b>	Describe the need for adjustments while preparing the financial statements.	<b>E</b>
<b>CO4</b>	Distinguish straight line method and Annuity method.	<b>AN</b>
<b>CO5</b>	Analyze capital and revenue accounts of non-trading organization.	<b>AN</b>
<b>Allied Course I: Managerial Economics</b>		<b>Subject Code: 22BFACBB1</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the basic concepts of economics.	<b>U</b>
<b>CO2</b>	Evaluate the functional relationship between production and factors of production	<b>AN</b>
<b>CO3</b>	Establish a framework for examining money in its functions as a medium of exchange and to define the many types of business organizations.	<b>AP</b>
<b>CO4</b>	Illustrate accounting principles to record, diverse transactions in books of accounts in order to prepare final accounts.	<b>E</b>
<b>CO5</b>	Apply Variety of tools to examine the company's financial situation.	<b>AP</b>
<b>Core Course III: Marketing Management</b>		<b>Subject Code:22BCCBB3</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the marketing concepts and trends in the market.	<b>U</b>
<b>CO2</b>	Comprehend the factors influencing consumer behavior.	<b>R</b>
<b>CO3</b>	Realize the relationship between marketing channels and corresponding strategies.	<b>R</b>
<b>CO4</b>	Classify the types of Intermediaries and wholesalers.	<b>AP</b>

CO5	Describe the behaviors that demonstrate ethical and social responsibility.	E
<b>Core Course IV: Business Mathematics and Statistics Subject Code: 22BCCBB4</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Understand the business applications of differentiations as a mathematical tool.	U
CO2	Recognize the business applications of determinants and matrices as mathematical tools.	R
CO3	Apply the proper statistical methods while analysing business data.	AP
CO4	Develop a strategic approach to organize and analyze the data	E
CO5	Analyze the management problems in research and decision making.	AN
<b>Allied course II: Business Environment Subject Code :22BFACBB2</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Understand the concepts of Business Environment.	U
CO2	Recognize domestic and international environment.	R
CO3	Describe the political institutions and judiciary government in business.	E
CO4	Apply the impact of environment on business.	AP
CO5	Analyze the social and cultural environment, people's attitude to business.	AN
<b>Core Course:V Managerial Communication Subject Code:16CCBB5</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Understand the basic concepts and principles of management.	U
CO2	Acquire the skills to needed to become successful managers.	R
CO3	Explore the various processes of the management systems.	AN
CO4	Describe requirement training and directions.	E
CO5	Analyze the concept needed for Budgetary control.	AN
<b>Core Course:VI Computer Applications in Business Subject Code:16CCCBB6</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Understand the basic concepts in computer applications.	U
CO2	Practice document through MS office packages.	AP
CO3	Demonstrate Hardware and Software systems.	E
CO4	Develop the fundamentals of computerized accounting and the features of Tally.	E
CO5	Apply the various accounting procedures through Tally software.	AP

<b>Allied course III: Business Law</b>		<b>Subject Code:16ACBB3</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Promote the various legislations relating to business.	R
CO2	Define law of agency mode of creation.	U
CO3	Describe the legal aspects in the business environment.	E
CO4	Analyze rights, duties and liability of partners.	AN
CO5	Illustrate the transfer of property and the performance of contract of sale.	E
<b>Non Major Elective I:Personal investment</b>		<b>Subject Code: 16NMECM1A</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Ability to plan and budget effectively.	U
CO2	Recognize the need to adapt financial planning to changing personal needs as well as changes in the economy and financial environment.	R
CO3	Effectively analyze the comparative merits of buying and renting a home; tax implications; buying, selling, and leasing fundamentals.	AN
CO4	Evaluate various types of credit; understand costs and how to utilize them to the best advantage.	AN
CO5	Evaluate the various types of insurance and relate this information to personal needs.	AN
<b>Core Course: VII Organizational Behaviour</b>		<b>Subject Code:16CCBB7</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Recognize the various models of organizational behavior.	R
CO2	Expose the concepts of motivation and group dynamics.	U
CO3	Illustrate the leadership qualities of effective leadership.	E
CO4	Definition of authority morale.	E
CO5	Acquire interpersonal skills.	R
<b>Core Course VIII: Operations Research</b>		<b>Subject Code :16CCBB8</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Understand the scientific methods used in Operations Research.	U
CO2	Allocate scarce resources with optimum utilization in production.	AP
CO3	Gain knowledge on replacement decisions.	R
CO4	Classify Categories of Inventory.	AP
CO5	Analyze replacement of equipment that deteriorates gradually that fails suddenly.	AN
<b>Allied course IV: Production Management</b>		<b>Subject Code:16ACBB4</b>
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Understand the basic concepts and theories of the production management.	U
CO2	Comprehend the operations management situations with greater confidence.	R
CO3	Anticipate issues in production and operations processes they may face oT during their careers.	E

<b>CO4</b>	Expand individual knowledge of operations management principles and oT practices.	<b>E</b>
<b>CO5</b>	Apply operations management concepts and their influence on business decisions.	<b>AP</b>

**Non Major Elective II : Introduction to Accountancy Subject Code: 16NMECM2A**

<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Acquire conceptual knowledge of basics of accounting	<b>R</b>
<b>CO2</b>	Identify events that need to be recorded in the accounting records	<b>AP</b>
<b>CO3</b>	Develop the skill of recording financial transactions and preparation of reports in accordance with GAAP	<b>E</b>
<b>CO4</b>	Describe the role of accounting information and its limitations	<b>E</b>
<b>CO5</b>	Equip with the knowledge of accounting process and preparation of final accounts of sole trader	<b>AN</b>

**Skill Based Elective I : Introduction to Office Management Subject Code: 16RSBE7:1**

<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Identify skills and competencies of an office manager.	<b>R</b>
<b>CO2</b>	Describe different forms of organizations.	<b>E</b>
<b>CO3</b>	Develop processes for office operations.	<b>E</b>
<b>CO4</b>	Identify components of office management roles and procedures and team dynamics.	<b>R</b>
<b>CO5</b>	Communicate finding using business software applications.	<b>AP</b>

**Core Course: IX Cost Accounting Subject Code: 16CCBB9**

<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the basic concepts of cost accounting.	<b>U</b>
<b>CO2</b>	Recognize the principles and procedures of cost accounting.	<b>R</b>
<b>CO3</b>	Describe the methods of remunerations and incentive schemes.	<b>E</b>
<b>CO4</b>	Analyze recovery rates, over and under absorption.	<b>AN</b>
<b>CO5</b>	Apply the costing techniques in different practical situations.	<b>AP</b>

**Core Course: X Financial Management Subject Code: 16CCBB10**

<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the various concepts of financial management.	<b>U</b>
<b>CO2</b>	Develop decision making skills on various financial matters.	<b>E</b>
<b>CO3</b>	Acquaint with various tools for the management and understanding of finance.	<b>R</b>
<b>CO4</b>	Distinguish net income approach and net operating approach.	<b>AN</b>
<b>CO5</b>	Apply discounted cash flow method in financial management.	<b>AP</b>



<b>Core Course: XI Company law and Secretarial Practice Subject Code: 16CCBB11</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Summarize Procedure for Incorporation of the company.	E
CO2	Analyze Sources of raising capital	AN
CO3	Evaluate Role and importance of Company Secretary and key managerial personnel.	AN
CO4	Enumerate legal procedure for declaration and payment of dividend.	E
CO5	Discuss Methods of raising funds through deposits and debentures.	E
<b>Core Course: XII Research methods in Management Subject Code: 16CCBB12</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Understand some basic concepts of research and its methodologies.	U
CO2	Identify appropriate research topics.	E
CO3	Select and define appropriate research problem and parameters.	R
CO4	Organize and conduct research (advanced project) in a more appropriate manner.	AP
CO5	Write a research report and thesis.	AP
<b>Major Based Elective I: Services Marketing Subject Code: 16MBEBB1</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Understand the various concepts of services marketing.	U
CO2	Comprehend the strategies for managing and marketing of services.	R
CO3	Describe the strategies for managing demand to match capacity.	E
CO4	Illustrate service planning factors affecting the pricing decisions.	E
CO5	Evaluate the physical factors of physical environment.	AN
<b>Skill Based Elective II: Office Management Tools Subject Code: 16RSBE7:2</b>		
<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
CO1	Understand the fundamentals of computer operating systems.	U
CO2	Explore template and formation of documents.	AP
CO3	Describe spreadsheet and worksheet.	E
CO4	Analyze the effects of multimedia.	AN
CO5	Demonstrate accounting machines and other modern office gadgets.	E

**Skill Based Elective III: Communication and interpersonal skills****Subject Code:16RSBE7:3**

<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Gain information about other individuals through communication.	<b>U</b>
<b>CO2</b>	Build a context of understanding through communication.	<b>U</b>
<b>CO3</b>	Establish and identify when using interpersonal communication	<b>E</b>
<b>CO4</b>	Demonstrate respect for others' viewpoints.	<b>E</b>
<b>CO5</b>	Maintain proper eye contact while communicating interpersonally.	<b>R</b>

**Core Course: XIII Human Resource Marketing****Subject Code: 16CCBB13**

<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Critically assess existing theory and practice in the field of HRM.	<b>R</b>
<b>CO2</b>	Develop an ability to undertake qualitative and quantitative research.	<b>E</b>
<b>CO3</b>	Describe the various policies and practices of HRM.	<b>E</b>
<b>CO4</b>	Respond positively to problems in unfamiliar contexts.	<b>AP</b>
<b>CO5</b>	Identify and apply new ideas, methods and ways of thinking.	<b>AP</b>

**Core Course: XIV Management Accounting****Subject Code: 16CCBB14**

<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the nature and scope of management accounting.	<b>U</b>
<b>CO2</b>	Recognize the preparation of financial statement analysis and marginal costing budgets.	<b>R</b>
<b>CO3</b>	Describe the objectives and limitations of cost volume profits analysis.	<b>E</b>
<b>CO4</b>	Differentiate the merits and demerits of marginal costing.	<b>AN</b>
<b>CO5</b>	Apply the management tools and techniques to take appropriate financial decisions.	<b>AP</b>

**Core Course: XV Entrepreneurial development****Subject Code: 16CCBB15**

<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the concepts of entrepreneurial development.	<b>U</b>
<b>CO2</b>	Comprehend the skills for becoming a successful entrepreneurial.	<b>R</b>
<b>CO3</b>	Describe entrepreneurial development programme.	<b>E</b>
<b>CO4</b>	Illustrate the projects appraisal methods.	<b>E</b>
<b>CO5</b>	Discuss the merits and demerits of family business.	<b>AN</b>

**Major Based Elective II: Management Concepts in Thirukkural****Subject Code: 16MBEBB2**

<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand business ethics and adapting to changing environment.	<b>U</b>
<b>CO2</b>	Analyze the principles of communication in decision making process.	<b>AN</b>
<b>CO3</b>	Describe the goal setting ability in the business.	<b>E</b>
<b>CO4</b>	Demonstrate the social responsibility of business.	<b>AP</b>
<b>CO5</b>	Analyze Personnel selection and their welfare of the staffs.	<b>AN</b>

**Major Based Elective III: Global Business Management Subject Code: 16MBEBB3**

<b>CO No.</b>	<b>Course Outcome</b>	<b>Cognitive Level</b>
<b>CO1</b>	Explain business expansion abroad and key issues related to their operations in other countries.	<b>E</b>
<b>CO2</b>	Compare and contrast cultures and societies globally using socioeconomic and cultural frameworks.	<b>AN</b>
<b>CO3</b>	Develop an entry strategy into other markets recognizing the nature of institutions and forces governing the process of globalization.	<b>E</b>
<b>CO4</b>	Comprehend the basic principles of t of MNCs.	<b>U</b>
<b>CO5</b>	Analyze global liberation and WTO agreements.	<b>AN</b>

