1.1.1 Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which is reflected in Programme outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) of the Programmes offered by the Institution.

POs of programmes addressing local, regional, national and global needs are:

- B.A. History - Regional, National and Global issues in social, political, religious and economic conditions.
- B.A. English - Regional, National and Global issues in Arts, Language, Literature through their Skill development by understanding, analyzing, interpreting and evaluating the literary texts.
- B.Sc. Zoology - Regional, National and Global issues in giving attention to ecological factors, environmental conservation processes, pollution control and Biodiversity and protection of threatened species.
- B.Com. - Entrepreneurial (Global), organizational developments and Industrial learning inNational and Regional level.
- B.Sc. Mathematics - Frame Mathematical solutions and reason out logical terms in Research techniques nationally and globally.
- BBA - Social cues and ethical challenges in Business organization and issues in Global Environment.
- B.Sc. Computer Science – Expertise in developing modern computing platforms and software inRegional, National and Global Environment.
- B.Sc. I.T. – Implementation of world-wide networking and development in contemporary business environments.
- B.A. Tamil - Regional, National and Global issues in Cultural, Political and Societal arena.
- B.Sc. Physics - Understand the role of Physics in society.
- B.Sc. N& D. - National and Global trends in Food, Social environment and dietary management.
- BCA - Recognizing and resolving Organizational Challenges and issues in National and Global arena.
- B.Com. (Computer Applications) - Inculcate professionalism through innovative practices and essential skills demands by the Global software Industry.
- B.Sc. Chemistry - Understand environmental issues and key issues facing chemistry in society at National and Global levels.

- M.Sc. Mathematics - Cultivate Mathematical aptitude and nurture interest in Research trends in National and Global level.
- M.Sc. IT – Computing technologies, software and skills in the Multinational Environment & Global Employability.
- MCA - Enhance Multidisciplinary projects through the Computing Techniques and Software for Global Employability.
- M.Com (Computer Applications) - Marketing (Regional / National), Taxation (National), Accounting, Finance and Banking (Global).
- M.A. English - Regional, National and Global issues in Arts and Social Science through the knowledge developed in language, literature, culture, linguistics, translation, teaching of English, creative writing and research methodology in Global Employability.
- M.Sc. Physics- Analyze and solve advanced problems in Physics.
- M.A. Tamil – Enhance their individuality and literary styles in the field of Tamil literature.
- M.A. History - Socio-cultural heritage of India and the World.

PSOs addressing Local, National, Regional and Global needs are:

- B.A. History - Historical Interests, Archaeological sites and Museums- Global Employability.
- B.A. English - Holistic understanding of English language, literature and the society.
- B.Sc. Zoology - Applications of biological sciences in Biotechnology, Apiculture, Poultry, Fisheries, Aquaculture and Vermiculture.
- B.Com - Industrial learning and internship.
- B.Sc. Mathematics - Operations Research techniques, proficiency especially in the executionof any specific projects.
- BBA - Global Environment and its impact on Business.
- B.Sc. Computer Science – Technical project reports as the requirements in society.
- B.Sc. (I.T) – Effectively integrated IT based solutions according to need of user environment.
- B.A. Tamil - Art, Culture and Mass Media Technology. - Regional, National and Global Employability.
- B.Sc. Physics - Effectively integrate IT based solutions as per the user environment.

- B.Sc. N&D - Formulate innovative, nutritious and novel food products to become successful entrepreneurs.
- BCA – Recognize and resolve ethical issues in Computing.
- B. Com (Computer Applications) - Exhibit their knowledge on database management systems in day-to-day business affairs.
- B.Sc. Chemistry - Acquire the ability to identify and describe the Principles in Industry, and Environment.
- M.Sc. Mathematics - Assimilate complex mathematical ideas, arguments and numerical analysis in real life problems.
- M.Sc. (I.T) – Computing systems through quantitative and qualitative techniques in the areas of Information Technology.
- MCA - Techniques to enhance ability for lifelong learning.
- M.Com (Computer Applications) - Innovative opportunities and latest technologies that helps to support updation in business.
- M.A. English - Regional, National and Global issues in Arts and Society through critical thinking, interdisciplinary approaches, and to analyze literature through multicultural aspects.
- M.Sc. Physics - Independent investigation skills and problems confronted in laboratory technique.
- M.A. Tamil – Communication and Creativity skills which enhance the employability.
- M.A. History - Update knowledge on research methods through perusal of research oriented activities.

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DEPARTMENT OF HISTORY

U.G.

DEPARTMENT OF HISTORY

Programme Code: H

Programme Name: B.A. History
(Tamil Medium & English Medium- Aided)

Programme Outcomes

1. To understand the nature of Historical truth and learn how knowledge about the past is produced and revised.
2. To study the past of societies and obtain empirical knowledge of Indian and World History, with a specific focus on Tamilnadu.
3. Sound Knowledge of Different Historical Periods.
4. Knowledge of Development of Historical Perspective.
5. The study of History helps to impart moral education.

Programme Specific Outcomes

1. Analyzing the relationship between the past and the present is lively presented in History.
2. Understand the present existing the social, political, religious and economic conditions of the people.
3. Enhance practical skills helpful in this study and understanding of Historical maps and models.
4. Acquire interests in the study of History and activities relating to History: They Collect ancient Arts, old coins and other Historical Artifacts.
5. Visit places of Historical Interests, Archaeological sites and Museums.
6. History installs the feeling of patriotism in the hearts of the Pupils.

Course Outcomes

SEMESTER – I

Subject Code: 17H11
Course Name: HISTORY OF INDIA – I (UP TO 900 A.D)

Upon completion of the course, the students will be able to

1. Introduce the broader geographical features of India and connected
2. Grasp the histories among the linguistic and cultural traditions of India
3. Apply the Primary sources such as Archaeological and Texts such as Arthasasthra, Buddhacharitha, Harsha charita be used in classroom discussion.
4. Explore the important Social, Political and Economic Developments of Ancient India.

Subject Code: 17H12
Course Name: **HISTORY OF TAMILNADU- I (UPTO - 1336 A.D)**

Upon completion of the course, the students will be able to

1. Recognize the topography and sources for the history of Tamilnadu.
2. Realize the value of social, political, economic development of ancient Tamilnadu.
3. Acquaint with the administration, art and architecture of the ancient Tamil kingdom and the heritage of early Tamils.

Subject Code: 17AH1
Course Name: GENERAL ECONOMICS

Upon completion of the course, the students will be able to

1. Demonstrate their knowledge of the fundamental and technical concepts of economics.
2. Attain the advantages and knowledge of Public investments and other government expenditures.
3. Identify the basic difference between inter-regional and international trade, understand how international trade has helped countries to acquire goods at cheaper cost and explain it through the various international trade theories.

Subject Code: 17NMH1
Course Name: INTRODUCTION TO TOURISM

Upon completion of the course, the students will be able to

1. Display an understanding of the production, implementation, and impacts of tourism development locally, nationally, and internationally.
2. Write clearly and concisely in the conventions of tourism studies.
3. Exhibit effective oral communication through personal interaction as well as classroom presentations, individually or as part of a group, to a larger audience.

SEMESTER - II

Subject Code: 17H21
Course Name: HISTORY OF INDIA – II (900 A.D-1707 A.D)

Upon completion of the course, the students will be able to

1. Introduce the conception of Sovereignty and ideas of Mughal dynasty.
2. Focus on the process of State formation of Mughals in Chronologically
3. Be familiar with the outlines of Art and Architecture and begin with brief revision of the same.

Subject Code: 17H22
Course Name: HISTORY OF TAMILNADU – II (1336 A.D – 1800 A.D)

Upon completion of the course, the students will be able to

1. Acquire a strong theoretical knowledge of political, cultural, social, and, economic structure in Tamil Nadu
2. Create a deep and intense feeling of the culture of Nayaks.
3. Understand the Mastery over the past and grasp a much greater appreciation for current event today.

Subject Code: 17AH2
Course Name: ECONOMIC DEVELOPMENT OF INDIA

Upon completion of the course, the students will be able to

1. Develop ideas of the basic characteristics of Indian economy, its potential on natural resources.
2. Apprehend the importance, causes and impact of population growth and its distribution, translate and relate them with economic development.
3. Comprehend agriculture as the foundation of economic growth and development,
4. Analyze the progress and changing nature of agricultural sector and its contribution to the economy as a whole
5. Grasp the importance of planning undertaken by the government of India.

Subject Code: 17NMH2
Course Name: CONSTITUTION OF INDIA

Upon completion of the course, the students will be able to

1. Have sound knowledge on the constitutional development in India and gain knowledge on the Communal Electoral System
2. Enhance themselves for competitive examinations.
3. Realize the duties and responsibilities as citizen of India.

SEMESTER - III

Subject Code: 17H31

Course Name: HISTORY OF INDIA – III (1707 A.D-1885 A.D)

Upon completion of the course, the students will be able to

1. Introduce themselves students to the heredity of Peshwas.
2. Examines the Political Policies of the British Governor Generals.
3. Comprehend Socio Religious Reform Movements in the 19th century with authoritative historical narratives about their pasts.

Subject Code: 17H32
Course Name: **HISTORY OF TAMILNADU-III (1800 A.D - 2006 A.D)**

Upon completion of the course, the students will be able to

1. Gain depth knowledge about the impact of western education and missionary activities.
2. Significance of the role of Tamil leaders in liberating mother land.
3. Acquaint with the role of Political parties and post development of Economic and Industries in Tamilnadu.

Subject Code: 17AH3
Course Name: **MODERN GOVERNMENTS- THEORY AND PRACTICE PAPER-I**

Upon completion of the course, the students will be able to

1. Understand how different systems of government are organized in relationsto different constitutional traditions and models.
2. Gain competence to identify and compare the general and specific features and functions of selected constitutions and governments.
3. Prepare themselves for Competitive Examinations.

Subject Code: 17SEH31
Course Name: COMPUTER APPLICATIONS

Upon completion of the course, the students will be able to

1. Demonstrate a basic understanding of computer hardware and software.
2. Understand the concept of input and output devices of Computers and how it works and recognize the basic terminology used in computer programming.
3. Create the various slides with different formats with the help of Ms PowerPoint.

SEMESTER – IV

Subject Code: 17H41

Course Name: HISTORY OF INDIA – IV (1885A.D-1947A.D)

Upon completion of the course, the students will be able to

1. Participate in discussion of the Formation of Indian National Congress.
2. Narrate the various movements and its impact to the freedom struggle.
3. Comprehend the role of Gandhi plays in the freedom struggle.

Subject Code: 17H42
Course Name: HISTORY OF SCIENCE AND TECHNOLOGY (SINCE 17th CENTURY A.D)

Upon completion of the course, the students will be able to

1. Be familiar with the outline of the foundation of Science academies and progress.
2. Shed light on major discoveries, inventions and scientific achievements and assess the society.
3. Stimulate the minds of the students on scientific discoveries.

Subject Code: 17AH4
Course Name: MODERN GOVERNMENTS- THEORY AND PRACTICE PAPER- II

Upon completion of the course, the students will be able to

1. To acquire the knowledge about the landmarks of Indian constitutional Development.
2. Acquire the knowledge of executive, legislature and judiciary of constitutional Development of India.
3. Apprehend features of the constitution of India, Switzerland and France.

Subject Code: 17SEH41
Course Name: FUNDAMENTALS OF ENTREPRENEURSHIP

Upon completion of the course, the students will be able to

1. Make clear qualities of successful entrepreneur, opportunities and challenges of women entrepreneurship.
2. Be Familiar with the financial institutions for entrepreneurial Development.
3. Be acquainted with the preparation of project proposals.

SEMESTER - V

Subject Code: 17H51

Course Name: **HISTORY OF INDIA –V (1947A.D-2000A.D)**

Upon completion of the course, the students will be able to

1. Understand the role of history plays in the contemporary India and also gain the knowledge of the formation and Re - organization of states
2. Grasp vivid knowledge of Reforms in Education since 1947A.D.
3. Acquire the learning objective of Economic Planning and Rural Development in India.

Subject Code: 17H52
Course Name: HISTORY OF EUROPE – I (1789 A.D – 1914A.D)

Upon completion of the course, the students will be able to

1. Realize the cause and results of French Revolution and the achievements of Napolean Bonaparte.
2. Visualize the importance of revolt of 1830 and 1848 in France and the efforts of Bismarck for the unification of Germany.
3. Be acquainted with some of the political and social changes in Europe after the Revolution.

Subject Code: 17HE5A
Course Name: TOURISM

Upon completion of the course, the students will be able to

1. Familiarize with the fundamental concept, growth and development of Tourism.
2. Acquire vivid knowledge of various elements of Tourism
3. Grasp the knowledge of travel formalities, Documents and to know the Tourism sites.

Subject Code: 17HE5B
Course Name: PRINCIPLES AND METHODS OF ARCHAEOLOGY

Upon completion of the course, the students will be able to

1. Understand and apply precisely fundamental archaeological terminology
2. Familiarize with basic descriptive technique and preliminary study of various categories of exploration and excavation.
3. Identify basic concepts of Excavation principles and conservation techniques.

Subject Code: 17SEH51
Course Name: **PANCHAYAT RAJ SYSTEM IN INDIA**

Upon completion of the course, the students will be able to

1. Learn the historical importance of origin and development of the panchayat raj in India.
2. Make out the powers and functions of Grama Panchayat in India and the administration of Panchayat Raj in India
3. Build interest to participate in Panchayatraj administrative bodies.

Subject Code: 17SEH52
Course Name: HUMAN RIGHTS

Upon completion of the course, the students will be able to

1. Have sound knowledge about the National and State Human Rights commission.
2. Reflectively weigh up the human rights practice on local, national or international humanitarian efforts.
3. Develop the knowledge on Power and Function of the Central and state Human Rights Commission.

SEMESTER – VI

Subject Code: 17H61
Course Name: ELEMENTS OF HISTORIOGRAPHY

Upon completion of the course, the students will be able to

1. Be aware of Historiography as a field of study in History Students will analyze the evolution of the historical profession from the Enlightenment to the present.
2. Acquaint with important Historiographical interventions and issues related to the Historian's craft.
3. Understand the methodology of historical writing.

Subject Code: 17H62
Course Name: HISTORY OF EUROPE – II (1914 A.D -2005 A.D)

Upon completion of the course, the students will be able to

1. Know how the world became divided after the First World War among the superpowers of the world.
2. Identify the Nazism and Fascism in German and Italy, the establishment of UNO
3. Comprehend the post-war developments of Social, Political and Economic scenarios of the World and decolonization and the emergence of the third world.

Subject Code: 17H63
Course Name: **FACETS OF WORLD CIVILIZATIONS**

Upon completion of the course, the students will be able to

1. Understand the civilizations emerged in different parts of the world.
2. Acquire the knowledge of ancient civilizations like. Indus, Egypt, China. Mesopotamia, Greece and Rome.
3. Apprehend the different kinds of sources – material culture, written sources and monumental Architecture.

Subject Code: 17HE6A
Course Name: **EPIGRAPHY**
Upon completion of the course, the students will be able to
1. View the history of India as a complex expression of communication and exchange systems within the history of epigraphy,
2. Successfully able to identify, decipher Brahmi scripts; and date of inscriptions with the help of paleographic features of the script.
3. Interpret the inscription in its socio-politico- religious and economical context.

Subject Code: 17SEH61
Course Name: WOMEN STUDIES
Upon completion of the course, the students will be able to

1. Identify the basic Concepts & Theories of women studies as well as defining gender, ideology, practice and relationship between gender, caste, class religion & politics.
2. Gather knowledge about the contribution of women towards the society through political, social and religious fields.
3. Be aware about the violence against the women and government preventive laws for their protection.

Subject Code: 17SEH62
Course Name: **INDIAN HISTORY FOR COMPETITIVE EXAMINATIONS**

Upon completion of the course, the students will be able to

1. Prepares the students for Union Public Service Commission, Tamil Nadu Public Service Commission (TNPSC) and other national and state level competitive exams.
2. Create perception among the aspirants about general and historic occurrences.
3. Be acquainted with Constitutional Provisions on the Formation, Functions, and Powers of Public Service Commissions for the Union and for the States and also clarifies about TNPSC and its rules of Procedure.

DEPARTMENT OF ENGLISH

U.G.

DEPARTMENT OF ENGLISH

Programme Code: E **Programme Name: B.A. English**

Programme Outcomes

1. Improve their brilliance in acquisition of listening, speaking, reading and Writing skills in English language. (Global)
2. Acquire many of the skills required for careers in the field of English Language Teaching, lexicography, interpretation/translation and Journalism. (National)
3. Manifest higher level of understanding, analyzing and interpreting any form of literature. (National)
4. Demonstrate skills in expressing thoughts and ideas intelligibly. (Global)
5. Critically evaluate the moral and ethical values in various literary texts and develop global perspectives. (Global)

Programme Specific Outcomes

On completion of B.A. English Programme, the students would be able to

1. Learn various language patterns, sentence structures and dialogue forms for effective communication. (Global)
2. Acquire knowledge about Indian Writing in English, American Literature and Common Wealth Literature. (Global)
3. Explore the full breadth of English and the society. (Global)
4. Develop the ability to read the prescribed texts and understand the forms, styles and structure implied. (Global)
5. Get familiar with variety of genres like Fiction, Nonfiction, Poetry, Biography, Autobiography, Drama and Short stories. (National)

Course Outcomes

SEMESTER – I

Subject Code: 17E11
Course Name: LITERARY FORMS (Global)

Upon the completion of the course, the students will be able to

1. To identify various forms of Literature.
2. To understand the characteristics of various types of fiction.
3. To learn different types of poetry.
4. To differentiate between varied forms of essays.
5. To familiarize with the techniques of Drama.

Subject Code: 17E12
Course Name: BRITISH LITERATURE PAPER-I (ELIZABETHAN AND PURITAN AGE) (Global)

Upon the completion of the course, the students will be able to

1. Exhibit comprehensive knowledge of literary creativity and prolific writing of the Elizabethan and Puritan Era.
2. Identify variety of prose and verse being heavily influenced by Italian, Spanish and French Literature.
3. Get acquainted with famous and prolific writers of this period like Sir Philip Sidney, Edmund Spencer, William Shakespeare, John Milton and more.
4. Focus on unique techniques and themes as Petrarchan sonnet, Tragicomedy, Platonic idealism, and Repulsive realism and so on…
5. Study various notable schools of literature like Metaphysical school & School of Spenser.

Subject Code: 17E13
Course Name: FUNCTIONAL GRAMMAR (Global)

Upon the completion of the course, the students will be able to

1. Make a systematic study of the fundamentals of grammar.
2. Augment their skills of speaking and writing effectively.
3. Obtain the nuances of arrangements of words, phrases and clauses and sentences in an efficient manner.
4. Develop employability skills by learning the language better.
5. Enhance their personality and interpersonal skills to communicate better.

Subject Code: 17NME1
Course Name: COMMUNICATION SKILLS I (Regional)

Upon the completion of the course, the students will be able to

1. Learn Communicative English by acquiring LSRW Skills.
2. Learn English language in a fun filled and easiest possible manner.
3. Establish employment strategies by developing communicative competency.
4. Tailor their language more effectively and concisely.
5. Self-aware of the barriers of their communication and thereby hone their verbal skills.

SEMESTER – II

Subject Code: 17E21
Course Name: BRITISH LITERATURE-II (AUGUSTAN AND ROMANTIC AGE) (Global)

Upon the completion of the course, the students will be able to

1. Emphasize a drastic shift in literary ideas that was influenced by classical writers like Horace, Virgil and Homer.
2. Feel the higher sense of imagination and deep thought provided by Romantic Literature.
3. Know the basic characteristic of Augustan period highlighting satire and irony, empiricism, comedy and the imitation of classics.
4. Know the fundamental attributes of Romantic age highlighting spiritual and supernatural elements of emoting through Literature.
5. Encounter the exceptionally bold political writings in all genres.

Subject Code: 17E22
Course Name: INDIAN ENGLISH LITERATURE (National)

Upon the completion of the course, the students will be able to

1. Learn the historical inclination of various genres of Indian Writing in English from Colonial times till the present modern age.
2. Understand the cultural heritage and traditional values of India through the literary works of Indian English writers.
3. Appreciate the creative use of English language in Indian writing.
4. Be knowledgeable about the prolific Indian writers who voiced through the English language, their sentiments against the oppression of Britishers.
5. Know about the influence of the literary movements of the West in India such as symbolism, surrealism, existentialism and so on.

Subject Code: 17AE21
Course Name: SOCIAL HISTORY OF ENGLAND (Global)

Upon the completion of the course, the students will be able to

1. Explore the full breadth of English Life and its society.
2. Resourced with various major trends and movements which have shaped the English society.
3. Identify the key themes which encapsulated the period.
4. Imbibe the deeper ambivalences created by the inception and evolution of social history itself over the last centuries.
5. Integrate the gained knowledge further into the mainstream analyses of early modern society.

Subject Code: 17NME2
Course Name: COMMUNICATION SKILLS II (Regional)

Upon the completion of the course, the students will be able to

1. View the practical communicative lessons as a place where their social change happens
2. Active with the different learning modalities- aural, oral, visual and kinesthetic of learning communicative techniques.
3. Learn to be more confident about their oral and written presentations.
4. Acquire the ability to be employable at the job market.
5. Acquire competency in their interpersonal skills and enhance one's personality on the whole.

SEMESTER – III

Subject Code: 17E31
Course Name: BRITISH LITERATURE-III (VICTORIAN AGE) (Global)

Upon the completion of the course, the students will be able to

1. Get introduced to the time of the world's first Industrial Revolution, political reform and social change.
2. Learn how the reign of Queen Victoria saw the demise of rural life with the expansion and growth of cities.
3. Knowing the era's greatest writers like Charles Dickens, Thomas Hardy, George Eliot, Bronte Sisters and others.
4. Understand how Victorian society was organized hierarchically on the aspects of gender and class, more often than race and religion.
5. Learn the predominantly appreciated developments in science that reflected in Literature.

Subject Code: 17E32
Course Name: AMERICAN LITERATURE (Global)

Upon the completion of the course, the students will be able to

1. Understand the American Psyche, the conflicts and tension faced by the American writers and the uniqueness of American experience.
2. Expose themselves with cultural differences through the writings of the prolific American authors.
3. Learn the emerging distinct sensibilities of both the modernist and post modernist themes.
4. Comprehend the avant-garde styles of early twentieth century literature.
5. Analyze the linguistic differences of British and American writings.

Subject Code: 17AE31
Course Name: HISTORY OF ENGLISH LITERATURE (Global)

Upon the completion of the course, the students will be able to

1. Understand the literary movements in the history of English Literature from the Age of Chaucer to the Modern Age.
2. Study the development of Language and Literature starting from Anglo-Saxons through Middle English to contemporary English.
3. Assimilate the great transformation and literary glory for centuries in the form of poetry, prose, drama and fiction.
4. Gain an understanding of the greatest influence of religion into literature through satires and denounces of church and state in different periods
5. Familiarize themselves about the importance of influence of various languages say French, Italian, Greek and Latin in the evolution of the greatest English Literature.

Subject Code: 17SEE31
Course Name: COMPUTER APPLICATIONS (Global)

Upon the completion of the course, the students will be able to

1. Become competent in using search engines and handling computers effectively.
2. Apprehend different versions of applications for different platforms.
3. Face the contemporary Technology-Oriented-Learning Process with right diligence.
4. Use MS Office tools and HTML more efficiently in their presentation skills.
5. Decipher computer knowledge as their fundamental route for future learning.

SEMESTER – IV

Subject Code: 17E41
Course Name: INDIAN WOMEN WRITERS (National)

Upon the completion of the course, the students will be able to

1. Discern the feminine aspects of transcultural emotions through Indian English Literature.
2. Understand deeply the inner conflicts of Indian women through their writings
3. Understand the influence of western ideologies in the traditional Indian Women's Psyche.
4. Discover themselves by navigating the complexities of contemporary womanhood.
5. Get an insightful knowledge about marginalization and its Literature.

Subject Code: 17E42
Course Name: LITERARY THEORY AND CRITICISM (Global)

Upon the completion of the course, the students will be able to

1. Learn the relationship between authors, readers and texts.
2. Comprehend different approaches, techniques, theories and interpretations to discover rich and deeper meaning.
3. Attempt to criticize a literary work focusing on form, organization, structure and so many other scholarly attributes rather than merely exhibiting likes and dislikes.
4. Have a comprehensive knowledge above various schools of critical theories.
5. Interpret literature sociologically, psychologically, spiritually, linguistically and through various other technicalities.

Subject Code: 17E43
Course Name: BRITISH LITERATURE - IV (MODERN AGE) (Global)

Upon the completion of the course, the students will be able to

1. Ascertain the contemporary themes and techniques of producing Literary works
2. Study how individualism and integrity of characters plays a vital role in most of the literary works
3. Unleash the modern anti-aesthetic, didactic, realistic way of characterizing human life.
4. Exposed to the writers of profuse intellect and wisdom.
5. Learn the radical & utopian spirit of modernism in political theories, anthropology, psychology and philosophy in the modern British Literature.

Subject Code: 17SEE41
Course Name: ECO-LITERATURE (National)

Upon the completion of the course, the students will be able to

1. Educate themselves on the relationship between natural settings and the human communities that dwell within them.
2. Acquaint themselves with ecological and nature themes.
3. Zoom out their perspectives beyond the personal narrative and connect themselves to humanities and nature.
4. Visualize the world with ecological concerns.
5. Comprehend various environmental movements and be in tune with nature.

SEMESTER – V

Subject Code: 17E51

Course Name: NEW LITERATURES (Global)

Upon the completion of the course, the students will be able to

1. Explore the writings of members of former British Empire.
2. Expose themselves to the new post colonial themes.
3. Learn about the radical opposition to colonial universalism through effusive writings of various authors.
4. Create awareness on the cultural and historical diversity of English Literature.
5. Learn 'English with a difference' where indigenous words are incorporated without translation.

Subject Code: 17E52
Course Name: GLOBAL MEN'S WRITINGS ON WOMEN (Global)

Upon the completion of the course, the students will be able to

1. Gain understanding of the great awakening on femininity and womanhood through the literary voice of male intellectuals.
2. Acquire deeper understanding of men's perspectives on women and their emotional lifeline.
3. Share and relate the humanness and man-woman relationship in a more profound way.
4. Grasp universal thoughts of masculinity and femininity from world renowned authors.
5. Know the exact and comprehensive status of woman in the society worldwide.

Subject Code: 17EE5A
Course Name: ENGLISH LANGUAGE TEACHING (Global)

Upon the completion of the course, the students will be able to

1. Learn grammatical, lexical and functional teaching methodologies to technically teach English language.
2. Focus on the building blocks of language through task based learning experience.
3. Involve themselves in a learner-centered process of communication and learning.
4. Explore and gain the skills and knowledge to design and produce materials for language lessons.
5. Apply wide range of popular career options either nationally or internationally.

Subject Code: 17EE5B
Course Name: PHONETICS (Global)

Upon the completion of the course, the students will be able to

1. Learn the theory of pronunciation and understand how the language works.
2. Develop deeper knowledge of the 26 letters and 45 sounds so as to get equipped not only to learn the language but also teach the language better.
3. Become acquainted with basic knowledge of teaching English language if they choose English Language Teaching and to get eligible for tests like TESOL, TEFL.
4. Improve their level of confidence while speaking phonetically and phonologically.
5. Concentrate more on practical use of their technical knowledge of language through task-based learning methodologies of language acquisition.

Subject Code: 17SEE51
Course Name: JOURNALISM AND MASS COMMUNICATION (National)

Upon the completion of the course, the students will be able to

1. Expose themselves to basics concepts and types of communication and journalism, nature of media, mass communication in India.
2. Learn the role of media in society, its impacts and effects, limitations and different forms of media.
3. Know about the roles and responsibilities of journalist, ethics, careers and training in journalism, media laws in India and freedom of Press.
4. Gain understanding of the history and development of different forms of media.
5. Study the formats of Report Writings for press, writing for Radio and TV, Advertising and Public Relations.

Subject Code: 17SEE52
Course Name: ENGLISH FOR COMPETITIVE EXAMS (National)

Upon the completion of the course, the students will be able to

1. Confidently face competitive government exams by gaining strong basics in English.
2. Learn important topics of general English for competitive exams.
3. Improve their verbal ability by learning the nuances of English language
4. Clear the 'General English' section of various Government Exams easily.
5. Possess excellent vocabulary, grammar and communication skills.

SEMESTER – VI

Subject Code: 17E61
Course Name: WORLD CLASSICS IN TRANSLATION (Global)

Upon the completion of the course, the students will be able to

1. Familiarize themselves with the literary classics ever written and translated from different parts of the world.
2. Emphasize in their young minds, the varied cultural differences through Literature around the world.
3. Learn influence of various languages and cultures in the birth of various civilizations around the world.
4. Expose themselves to magnificent literary works of centuries exploring diversified themes and techniques of literary production.
5. Provide themselves an opportunity to study classical antiquity, philosophy, history and archeology through varied literatures of the world translated in English.

Subject Code: 17E62
Course Name: INDIAN DIASPORIC WOMEN WRITERS (Global)

Upon the completion of the course, the students will be able to

1. Be acquainted with cultural experiences and socio-economic conditions of Indian immigrants.
2. Understand and appreciate adaptation and assimilation of the Indian Diaspora.
3. Get new perspective of maintenance of home culture and integration of the same in host culture.
4. Analyze the psychological and sociological traumas experiences by immigrants.
5. Explore the feminine sensibility through prolific women writers of international fame and background.

Subject Code: 17E63
Course Name SHAKESPEARE (Global)

Upon the completion of the course, the students will be able to

1. Learn about the greatest writer in the English language and the world's greatest dramatist.
2. Learn the elaborate technicalities and versatility of English language through his writings of universal appeal.
3. Get a wide knowledge and lasting impression on the theatre and literature.
4. Explore the colossal dramatic potential of characterization, plot language and genre.
5. Get acquainted with literature and trends in Drama during Elizabethan period.

Subject Code: 17EE6A
Course Name: HUMAN RIGHTS IN LITERATURE (Global)

Upon the completion of the course, the students will be able to

1. Get introduced to a literary genre that deals with human rights issues and thus directly or indirectly promotes values of human rights
2. Commit themselves to moral duty and power to make social change by analyzing the right norms and rights to human life through Literary works.
3. Learn the responsibility of the authors in realizing the social commitment under the power of their literary creation.
4. Know about the freedom of expression of writers' thoughts.
5. Provide themselves an opportunity for right action in the society due to the power of literature to enter our inner psyche.

Subject Code: 17SEE61
Course Name: JOB ORIENTED SKILLS (National)

Upon the completion of the course, the students will be able to

1. Equip themselves with the required language skills to face interviews, group discussions and effective communications.
2. Focus on the development of their employability skills.
3. Concentrate on the technical aspects of written communication.
4. Train themselves to acquire interpersonal skills.
5. Become confident and assertive while presenting themselves in the job market.

Subject Code: 17SEE62
Course Name: ENGLISH FOR ENHANCEMENT (National)

Upon the completion of the course, the students will be able to

1. Enhance their confidence level when using the English language on a daily basis.
2. Learn the proficiency that they need to keep up at the workplace and within the classroom.
3. Get experiences of language enhancement starting from fundamentals and basics of English Language to advance techniques.
4. Prepare themselves to confidently appear for English language oriented-competitive exams like IELTS & TOEFL.
5. Involve themselves with activity based learning of language.

DEPARTMENT OF ZOOLOGY

U.G.

DEPARTMENT OF ZOOLOGY

Programme Code: Z **Programme Name: B.Sc. Zoology**

Programme Outcomes

1. Learners would be able to analyze the relationships among animals, plants and microbes and gain skill in the systematics of animal kingdom.
2. Learners would be inspired to choose career options in the field of Developmental Biology, Fishery industry, Wild life conservation, Ecotourism, Biotechnology and Research etc.
3. Apply the knowledge and understanding of Zoology to one's own life.
4. Gain knowledge of protection of vulnerable and endangered species.
5. Gain Information and skill of advanced biological techniques for experimental purposes.
6. The programme is designed in such a way that students should be able to solve the problems, think scientifically, independently and draw rational conclusions.
7. Students will understand the science of vermicomposting, dairy, aquaculture, beekeeping with respect to entrepreneurship.

Programme Specific Outcomes

1. Maintain high standards of learning in animal sciences.
2. Apply the knowledge to lead a healthy lifestyle.
3. Identify animals beneficial to humans.
4. Awareness on ethical principles.
5. Acquire specific knowledge on the various sections of Life Sciences, Cell Biology, Genetics, Taxonomy, Applied Zoology, General Embryology and Public Health.
6. Understand good laboratory practices and safety.
7. Understand the applications of biological sciences in Biotechnology, Apiculture, Poultry, Fisheries, Aquaculture and Vermiculture.

Course Outcomes

SEMESTER - I

Subject Code: 17Z111

Course Name: INVERTEBRATA

Upon completion of the course, the students will be able to

1. Enable the students to understand the level of organization in Invertebrate classifications.
2. Help the students gain practical applications in the biomedical and agronomy fields of research.
3. Make the learners aware of the human misconceptions, bioethics and phobias associated with invertebrate interactions.

Subject Code: 17SEZ11

Course Name: COMPUTER APPLICATION

Upon completion of the course, the students will be able to

1. Enable the students to understand the basic operations in computer hardware and software.
2. Make students develop the skill in using computer applications software.
3. Help the students to gain basic computing skills.

Subject Code: 17SEZ12

Course Name: AQUACULTURE

1. Produce protein rich, nutritive, palatable and easily digestible human food.
2. Produce ornamental fish for aesthetic appeal.
3. Make learners aware of the means of livelihood through commercial and industrial aquaculture.

Subject Code: 17NMZ1

Course Name: MEDICAL MICROBIOLOGY

1. Introduce basic principles and applications in relevance to clinical diseases.
2. Make students know the etiological agents responsible for global infections and diseases.
3. Make students acquire and demonstrate with competency in microbiological research.

SEMESTER - II

Subject Code: 17Z21

Course Name: CHORDATE

Upon completion of the course, the students will be able to

1. Learners will be able to understand the origin and evolutionary relationship in different subphylum of chordates.
2. Understand the ecological role of different groups of chordates.
3. Make students learn and describe unique characters of urochordates, cephalochordates and fishes.

Subject Code: 17SEZ21

Course Name: VERMITECHNOLOGY

Upon completion of the course, the students will be able to

1. Understand the basic principles and procedures of Vermicomposting and Vermiculture technology
2. Make students aware of ecofriendly agriculture through organic farming utilizing the byproducts of Vermiculture.
3. Students will be able to produce and generate income in the production of biomanure made from kitchen wastes.

Subject Code: 17SEZ22

Course Name: CLINICAL MICROBIOLOGY

Upon completion of the course, the students will be able to

1. Create knowledge and avenues for self employment.
2. Impart knowledge of the basic principles of bacteriology, virology, mycology and parasitology.
3. Students will understand the nature of pathogenic microorganisms, pathogenesis, laboratory diagnosis, transmission, prevention and control of diseases common in the country.

Subject Code: 17NMZ21

Course Name: ORNAMENTAL FISH CULTURE

Upon completion of the course, the students will be able to

1. Analyse the impact of the aquarium fish trade on social and natural environments.
2. Collect baseline data on the ecosystems, socio –economy and diversity of fishes.
3. Develop best handling practices for the care of fishes .

Sub code :17Z2P
Name of the Course : LAB IN INVERTEBRATA AND CHORDATA INVERTEBRATA

Upon completion of the course, the students will be able to

1. Students will be able to describe the morphology, habit, habitat, systematic position and various systems in all phylums.
2. Enable to prepare mounting of mouth parts of few common insects.
3. Experience in anatomy through simple dissections.
4. Familiarize organ systems.

CHORDATA

1. To describe the salient features and classification of phylum Chordata and their origin.
2. Gain knowledge to distinguish between poisonous and non-poisonous snakes.
3. Describe the External features of fresh and marine water fishes and other aquaculture organisms.

SEMESTER - III

Subject Code: 17Z31
Course Name: CELL AND MOLECULAR BIOLOGY

Upon completion of the course, the students will be able to

1. Study the fundamentals of Cell and Molecular Biology and gain knowledge on how all living organisms develop, survive and evolve.
2. Learn about the significance of macromolecules- DNA, RNA and proteins.
3. Understand the importance of cell division and replication in developmental biology.

SEMESTER - IV

Subject Code: 17Z41
Course Name: DEVELOPMENTAL BIOLOGY

Upon completion of the course, the students will be able to

1. Helps one to investigate how fertilized egg cells divide in regulated manners to grow into full size bodies.
2. Students will be enriched with the basic knowledge of Developmental Biology, Experimental Embryology and Applied Embryology.
3. Learn about molecular genetics, cellular /integrative aspects of building an organism and developmental abnormalities.

Sub code :17Z4P
Name of the Course : LAB IN CELL AND MOLECULAR BIOLOGY& DEVELOPMENTAL BIOLOGY CELL AND MOLECULAR BIOLOGY

Upon completion of the course, the students will be able to

1. Identify the phases of cell division.
2. Prepare Blood smear and identify the various cells
3. Ability to observe chromosomal arrangements during cell division.
4. Squash preparation of salivary glands in Chironomous larva.

DEVELOPMENT BIOLOGY

1. Identify and explain the types of eggs and placenta, blastula and gastrula of Frog .
2. Identify the age of chick embryo – 48hrs, 72hrs 96hrs.
3. Study the mammalian sperm and ovum.
4. Study the cleavage stages – 2cell, 4cell, 8cell stages.

SEMESTER - V

Subject Code: 17Z51
Course Name: GENETICS

Upon completion of the course, the students will be able to

1.Understand one's own health and make healthy choices.
2.Learn genetic technologies to help develop targeted medicines for certain diseases.
3.Gain knowledge on the arrangement of Genes, their interaction and the influence of environment on gene expression.

Subject Code: 17ZE5A
Course Name: ECOLOGY AND EVOLUTION

Upon completion of the course, the students will be able to

1. Learn interdependence between people and nature that is vital for food production.
2. Able to solve biological problems that impact our lives.
3. Gain knowledge on the connections that exist between different species.

Subject Code: 17ZE5B

Course Name: BIOCHEMISTRY

Upon completion of the course, the students will be able to

1.Broadens our understanding of biochemical changes relating to physiological alteration in human body.
2.Understand the chemical aspects of biological processes such as digestion, hormonal action and muscle contraction –relaxation.
3.Application of skills in answering, critically analyzing, interpreting and presenting the results of laboratory investigations.

Subject Code: 17SEZ51

Course Name:BIOSTATISTICS

Upon completion of the course, the students will be able to

1. Demonstration and familiarization with core content of any one area in health sciences. Example- Genetics.
2. Enable to formulate and perform a descriptive and inferential analysis of a public health or other health sciences study using statistical software.
3. Capable of self directed learning of unfamiliar statistical methods and presentation of results/findings.

SEMESTER - VI

Subject Code: 17Z61

Course Name: PHYSIOLOGY

Upon completion of the course, the students will be able to

1. Provide thorough understanding of normal body function enabling more effective treatment of abnormal or disease states.
2. Provide insight into the complex nature of the human body and the countless different systems that make it up.
3. Acquire knowledge of the senses, movements and needs of the human body.

Subject Code: 17Z62

Course Name: MICROBIOLOGY AND IMMUNOLOGY

Upon completion of the course, the students will be able to

1. Acquire knowledge and understanding of the concepts of Microbiology in the field of medicine, industry, environment, genetics, agriculture, food and others.
2. Demonstrate key practical skills/competencies in working with microbes.
3. Demonstrate the basic knowledge of immunological processes at a cellular and molecular level and understand the principles governing vaccination and the mechanisms of protection against infectious diseases.

Subject Code: 17ZE6A

Course Name: BIOTECHNOLOGY

Upon completion of the course, the students will be able to

1. Understand the principles of animal culture, media preparation, Invitro fertilization and embryo transfer technology.
2. Aware of the applications of recombinant DNA technology in agriculture and production of therapeutic proteins.
3. Knowledge of the microbial degradation of Pesticides, Bioremediation & Biofertilizers.

Subject Code: 17SEZ61

Course Name: ECONOMIC ZOOLOGY

Upon completion of the course, the students will be able to

1. Gain knowledge on the concepts of origin, growth and study of Sericulture as science, to acquaint the general aspects of Sericulture industry.
2. Identify various types of honeybee , importance of wax and identify what to look for in comb during hive inspections
3. Understand the principles, importance, purpose and application of the basic technologies in fisheries and aquaculture.
4. Gain skill on the economic importance of poultry farming to determine the best poultry management system.
5. Promote women entrepreneurship in rural areas through incorporation of women into economic activity.
6. Understand basic characteristics of common breeds of livestock species.

Sub code :17Z61P
Name of the Course : LAB IN BIOCHEMISTRY. GENETICS, ECOLOGY & EVOLUTION

Upon completion of the course, the students will be able to

BIOCHEMISTRY:

1. Enable to estimate Hb by Sahli's method.
2. Enable to investigate sugar in urine samples.
3. Qualitatively analyse the given carbohydrates, Proteins and Fats
4. Measure the pH of given samples.

GENETICS:

1. Biological data- calculation of Mean, Median, Mode and Standard deviation.
2. Observing Simple Mendelian traits.
3. Understand the significance of sex linked and sex limited inheritance in humans.

ECOLOGY:

1. Observe turbidity using Secchi disc.
2. Familiarize with ecological adaptations.
3. Analyse the content of dissolved Oxygen in various water samples –pond water, river water ,tap water etc.

EVOLUTION:

1. Study of living fossils ,connecting link, evolutionary significance of Peripatus and Limulus.
2. Explain the stages of human evolution.
3. Identify the fossil types and adaptations in animals.

Sub code :17Z62P
Name of the Course :LAB IN PHYSIOLOGY, MICROBIOLOGY, IMMUNOLOGY AND BIOTECHNOLOGY

Upon completion of the course, the students will be able to

PHYSIOLOGY:

1. Activity of human salivary amylase in relation to pH, enzyme and temperature.
2. Enable to detect ammonia (nitrogenous waste) in fish tank water.
3. Use of BP apparatus, Stethoscope etc.
4. Count total leucocytes from Blood samples.
5. Estimate dissolved O_2 content of various water samples with reference to weight of fish.

MICROBIOLOGY:

1. Students will be able to get the basics and importance of practicals of microscopy, staining and sterilization.
2. Master aseptic techniques and be able to perform routine culture handling tasks safely and effectively.

IMMUNOLOGY:

1. To identify the prepared slides of histology- Thymus, Spleen, Bone marrow, Lymph node.
2. To understand Ag–Ab reactions and to report human blood groups.
3. To be familiar with immunization schedule and its importance.

BIOTECHNOLOGY:

1. Explain the basics of Animal Biotechnology.
2. Explain gene transfer methods for the production of transgenic animals.
3. Address bioethical and biosafety issues related to animal transgenics.
4. Gain knowledge on the production of GMOs.

ALLIED CHEMISTRY-I

Allied Chemistry

(for B.Sc. Mathematics and Zoology Majors)

Course Outcomes

SEMESTER - I

Subject Code: 17AK1
Course Name: GENERAL CHEMISTRY-I

Upon completion of the course, the students will be able to

1. Understand the proper setups and various steps involved in metal extraction.
2. Provide a comprehensive overview on colloids.
3. Mention the types of catalysis and the laws of photochemistry.
4. Define chromophore, auxochrome theory and the explain in preparation of dyes.
5. Describe the arrangements of elements and a the variation in periodic properties.

SEMESTER - II

Subject Code: 17AK2

Course Name: GENERAL CHEMISTRY-II

Upon completion of the course, the students will be able to

1. Describe the structure of atom by quantum mechanical approach.
2. Acquaint with the knowledge in preparation and usage of isotopes of hydrogen, covalent hydrides, polymeric hydrides.
3. Explain the fundamental concepts of sp^3, sp^2,sp hybridization ,bond fission and stability of reaction intermediates.
4. Get insight into synthesis and uses of naphthalene, furan, and pyridine.
5. Acquire in-depth knowledge about the carbohydrates.

Subject Code: 17AK2P
Course Name: SALT ANALYSIS

Upon completion of the course, the students will be able to

1. Identify the simple cation and anions by preliminary reactions.
2. Follow the procedures systematically in the elimination of interfering radicals. and identify the cations in the group separation(Group I –VI).
3. Recording the result of salt analysis test.

SEMESTER - III

Subject Code: 17AK3
Course Name: GENERAL CHEMISTRY-III

Upon completion of the course, the students will be able to

1. Learn and analyze the bonding characteristics in compounds.
1. Predict the oxidation states and balance redox reactions.
2. Familiar with the organic halogen compounds.
3. Get concise information about polymers.
4. Know the fundamental aspects of ionic equilibrium.

SEMESTER – IV

Subject Code: 17AK4
Course Name: GENERAL CHEMISTRY-IV

Upon completion of the course, the students will be able to

1. Recognize the basic concepts of co-ordination chemistry.
2. Acquire basic idea about the alkaloids and Terpenoids.
3. Asses the chemistry of organic and industrial organic compounds.
4. Gain knowledge on the structure and uses of some drugs such as antibacterials, antimalarials, antibiotics and arsenical drugs.
5. Acquire the knowledge in various pesticides, insecticides, fungicides and herbicides.

Subject Code: 17AK4P
Course Name: VOLUMETRIC ANALYSIS

Upon completion of the course, the students will be able to

1. Perform simple acid, base and redox titrations skillfully
2. Know the applications of volumetric analysis
3. Identify different types of errors in quantitative analysis.

ALLIED BOTANY-II

ALLIED BOTANY

Semester III

Course Outcomes

Subject Code: 17AG4
Course Name: PLANT DIVERSITY I- ALGAE, FUNGI, BRYOPHYTE, PTERIDOPHYTE & GYMNOSPERM

Upon completion of the course, the students will be able to

1. Understand the systematic position, diversity, morphology, structure, reproduction and life cycle of various types of Algae and Fungi species.
2. Know the systematic position, occurrence, thallus structure, reproduction and life cycle of selected Bryophyte and Pteridophyte species.
3. Analyze the evolutionary trends of living gymnosperms external, internal features, reproduction and life cycle.

Semester IV
Course Outcomes

Subject Code: 17AG4

Course Name: CELL BIOLOGY, PLANT ANATOMY, GENETICS, PLANT BREEDING & HORTICULTURE.

Upon completion of the course, the students will be able to

1. Analyze basic structures of the plant cell, its function and cell inclusions.
2. Understand plant cells ,tissues, their functions and internal structure of various tissues in the stem and root.
3. Acquire the basic concepts of Mendelian genetics.
4. Explain the concepts of plant breeding involving the principles, selection procedure and its achievements in the field of agricultural crop improvement.
5. Know the plant propagation type and its practices in specific plants.

Subject : 17AG4P
Course Name: PRACTICAL I

Upon completion of the course, the students will be able to

1. Acquire hands-on practice about micro-preparation, hand sectioning and observation of permanent slides of the lower and higher group of plant species.
2. Categorize the internal structure of monocot and dicot (stem, leaf and root), secondary thickening and anomalous secondary thickening (Dicot and Monocot).
3. Attain the knowledge of plant cellular organelles.
4. Perform emasculation techniques.
5. Analyze the genetic variations among plants.
6. Demonstrate the techniques of gardening - Types, Methods & Tools.

Semester V
Course Outcomes

Subject Code: 17AG5

Programme Name: MORPHOLOGY, TAXONOMY OF ANGIOSPERMS, MEDICINAL BOTANY & ECONOMIC BOTANY

Upon completion of the course, the students will be able to

1. Understand various modifications of plant parts and their purpose in plants.
2. Comprehend the concepts of plant taxonomy and classification of Angiosperms.
3. Know the Salient feature, taxonomy and economical values of plants in each family.
4. Gain knowledge of traditional medicine, sources of drugs and its application for human ailments.
5. Expansion of knowledge in the economic importance of certain plant and its demand for human needs.

Semester VI
Course Outcomes

Subject Code: 17AG6

Course Name: PLANT PHYSIOLOGY, EMBRYOLOGY, PLANT TISSUE CULTURE & PLANT PATHOLOGY

Upon completion of the course, the students will be able to

1. Know about Photosynthesis and Respiration, absorption of water and translocation of solutes in plants.
2. Familiar with the application of plant growth hormones in agriculture and horticulture.
3. Understand the growth and developmental processes, pollination, fertilization, embryogeny and types endosperm in plants.
4. Acquire knowledge about the basic perception, procedural skill and applications of plant tissue culture.
5. Comprehend the scope and importance of plant pathology, its effect on the economy of crops and control measures for the plant diseases.

Subject : 17AG6P
Course Name: PRACTICAL II

Upon completion of the course, the students will be able to

1. Relate the morphological features and dissected out floral parts of the plants in identifying its taxonomic family.
2. Recognize the economically important plants.
3. Knowledge of pharmacological importance of medicinal plants and their bioactive compounds.
4. Analysis of the process of photosynthesis through experimentations.
5. Get adequate knowledge in dissection and perceiving the internal structure of anthers, and ovules.
6. Demonstrate the plant tissue culture techniques and preparation of culture medium.
7. Categorize the organisms and causal factor responsible for some common plant diseases.

DEPARTMENT OF COMMERCE

U.G.

DEPARTMENT OF COMMERCE

Programme Code: C **Programme Name: B.Com.**

Programme Outcomes

1. Complete Professional Courses like CA, CS, CMA, MBA, M.Com, CPA and ACCA Successfully.
2. Become Chartered Accountant, Chief Internal Auditor, Chief Accountant, Legal Advisor, Managers and Sales representatives in multinational companies.
3. Acquire skill to select teaching and research as a Profession.
4. Became successful and socially responsible women entrepreneurs with creative ideas.
5. To gain knowledge that helps to face various competitive examination.

Programme Specific Outcomes

On completion of B.Com. Commerce Programme, the students would be able to

1. To become experts in accounting methodology and enhance professionalism through innovative practices, to be tactful in facing unforeseen demands and changes in situational roles in industry and academics.
2. To gain through subject knowledge from practical experiences, industrial learning and internship.
3. To develop entrepreneurial skills, groups activities, spirit of coordination shaping up their professionalism.
4. To adopt innovative opportunities, latest technologies that helps to develop new business.
5. To enhance informative, and expressive computer knowledge that helps them to face the competitive examinations.

Course Outcomes

Upon completion of the course, the students will be able to

SEMESTER - I

Subject Code: 171C1
Course Name: BUSINESS CORRESPONDENCE

Upon completion of the course, the students will be able to

1. To understand the basic concepts of communication and various forms of business communication including resume preparation.
2. Illustrate trade enquiries and orders.
3. To learn the skill of writing collection and circular letters.
4. To understand the Banking and Insurance letter writing that helps in making claims and settlements.
5. To gain the knowledge in report writing and recent developments in communication.

Subject Code: 171C11
Course Name: MARKETING

Upon completion of the course, the students will be able to

1. Describe the importance of modern marketing concepts.
2. Illustrate various functions of marketing.
3. Describe the various behavioral aspects of consumers such as standardization and grading system.
4. Examine the classification of products based on pricing, branding and packaging system in marketing.
5. Categorize the various modes of transportation, distributional channels and the recent developments in marketing.

Subject Code: 17C12
Course Name: FINANCIAL ACCOUNTING- I

Upon completion of the course, the students will be able to

1. Describe accounting concepts, conventions and preparation of final accounts for sole trading concern.
2. Identify various kinds of errors, its rectification and prepare the bank reconciliation statement.
3. Prepare both the receipts and payment account and Income and Expenditure account.
4. To understand the calculation of depreciation under the various methods.
5. Categorize the bills, promissory notes and to journalize the transactions in a bill.

Subject Code: 17AC1
Course Name: COMPUTER FUNDAMENTAL

Upon completion of the course, the students will be able to

1. Understand the fundamental concepts of computers.
2. Understand Decimal, Binary, Octal, Hexadecimal Number System.
3. Familiarize with the CPU, Memory and storage device of the computer
4. Understand the Input and Output Device of Computer.
5. Understand the Types and Topology of Computer Networks.

Subject Code: 17NMC1
Course Name: BASIC ACCOUNTING

Upon completion of the course, the students will be able to

1. Define Accounting, Concepts and conventions in preparation of journals.
2. Preparation of subsidy books.
3. Knowledge in preparation on cash and petty cash book.
4. Prepare ledger posting and trial balance.
5. Prepare the final accounts for sole trading concerns.

Subject Code: 171C2
Course Name: PRINCIPLES OF MANAGEMENT

Upon completion of the course, the students will be able to

1. Know the evolution of management thought.
2. Study the concepts of planning in management.
3. Describe the functions and principle of organization.
4. Describe the various stating functions and elements in an organisation.
5. Understand the leadership qualities and its importance.

SEMESTER - II

Subject Code: 17C12

Course Name: ADVERTISING AND SALESMANSHIP

Upon completion of the course, the students will be able to

1. Understand the importance of advertising.
2. Know about the qualities of a good advertisement copy and the kinds of media.
3. Describe the concepts of sales promotion.
4. Get the knowledge of duties and qualities of a salesman.
5. Identify methods of training and wage plan to salesman.

Subject Code: 17C22
Course Name: FINANCIAL ACCOUNTING-II

Upon completion of the course, the students will be able to

1. Prepare various accounting treatment in consignment.
2. Prepare accounting for joint venture business.
3. Get knowledge of both the single and double entry system of accounting
4. Prepare the branch and department accounting.
5. Know about the calculation of interest under various methods.

Subject Code: 17AC2
Course Name: BUSINESS ECONOMICS

Upon completion of the course, the students will be able to

1. Describe the concepts in managerial economics and application of appropriate economics tools in making business decisions.
2. Analyse the usage of law of demand and elasticity of demand.
3. Forecasting of demand rates under different market conditions.
4. Examine the various methods of pricing.
5. Learn the profit planning methods and break even analysis.

Subject Code: 17NMC2
Course Name: ENTREPRENEURSHIP DEVELOPMENT

Upon completion of the course, the students will be able to

1. Understand the importance and functions of entrepreneurship.
2. Identify entrepreneurial Qualities and types of entrepreneurs.
3. Examine the various types of women entrepreneurs.
4. Gain the knowledge about institutional support towards entrepreneurship.

SEMESTER - III

Subject Code: 17C31
Course Name: BUSINESS ENVIRONMENT

Upon completion of the course, the students will be able to

1. To explain the definitions, micro and macro business environment and the SWOT analysis.
2. To described about new industrial policy, privatization and MNC companies.
3. To described social business and audit.
4. To gain information about the micro, small and medium sized enterprises.

Subject Code: 17C32
Course Name: INSURANCE

Upon completion of the course, the students will be able to

1. Provide a basic understanding of insurance, the concepts and principles.
2. Gain the Knowledge regarding insurance policy, its term conditions and the mortality tables.
3. Explain the basic concepts, principles, policies, procedures, conditions loss claims, and premium calculation of marine insurance.
4. Describe the meaning, nature, the kinds of policies procedures, conditions, rate fixation, settlement of claim, and reinsurance in fire insurance.
5. Understand about the role of IRDA, its guidance, present scenario of IRDA and Life Insurance Corporation of India.

Subject Code: 17C33
Course Name: ADVANCED ACCOUNTANCY

Upon completion of the course, the students will be able to

1. Prepare the financial accounts for fire insurance at different situations, the loss of stock loss of profit policy.
2. Understand the various types of Royalty Accounts and their representatives in the books of lessor and lessee.
3. Prepare financial statements of affairs for Insolvency accounts and Individuals.
4. Evaluate the different modes of Installment methodologies in hire purchase, system calculation of Interest in books of buyer and seller

Subject Code: 17C34
Course Name: COSTING

Upon completion of the course, the students will be able to

1. Prepare the procedures in cost sheet accounting and preparation of Quotation.
2. Understand the level of stock and methods of pricing material.
3. Learn the various wage plans and the price rate system.
4. Understand the concepts of accounting for overheads and the process of costing techniques.

Subject Code: 17AC3
Course Name: BUSINESS STATISTICS

Upon completion of the course, the students will be able to

1. Understand the basic statistical collection, statistical series, tabular and graphical representation of data.
2. Calculate the measures of central tendency, dispersion and asymmetry, correlation and regression analysis.
3. Apply knowledge to solve simple task using skewness and kurtosis.
4. Independently calculate basic statistics parameter Viz Mean, measures of dispersion correlation and co-efficient indexes.
5. Choose a statistical method for solving practical problems.
6. Highlights statistical relationships between variables in the data sets
7. Predict the values of strategic variables using time series and trend analysis.

Subject Code: 17SEC3P
Course Name: COMMERCE PRACTICAL

Upon completion of the course, the students will be able to

1. Make use of the practical knowledge of various forms used in Banking and Insurance Sector.
2. To became an entrepreneur through practice of preparing model projects.
3. To understand the preparation of filing GST.

SEMESTER - IV

Subject Code: 17C41
Course Name: ENTREPRENEURSHIP DEVELOPMENT

Upon completion of the course, the students will be able to

1. To understand the meaning, importance and role of entrepreneurs in economic development
2. To encourage entrepreneurship- and learn the positive and negative aspects of entrepreneurship.
3. To explain women entrepreneurs-the problems and remedial measures undertaken for the upliftment of women entrepreneurs –to gain knowledge on the incentives schemes of women entrepreneurs.
4. To understand the industrial support and subsidies given for entrepreneurship development.
5. To explain project report-its meaning and the appraisal of project.

Subject Code: 17C42
Course Name: AUDITING

Upon completion of the course, the students will be able to

1. To discuss the basic principles, qualities and role of the auditor in modern business society.
2. To understand the audit process from the engagement planning stage to the completion of the audit and preparation of various report.
3. To explain the internal audit process including the professional standards applicable to the process of internal audit.
4. To describe the importance of vouching and explain the broad principles in valuation of assets and liabilities.
5. To evaluate the role, duties and responsibilities of the auditor and briefly explain about rules and regulation governing the auditors appointment and removal.

Subject Code: 17C43
Course Name: BANKING

Upon completion of the course, the students will be able to

1. Understanding the principles of Banking law and its relationships to banks and customers.
2. To provide knowledge about commercial banks and its products.
3. To explain about the significance of paying banker and collecting banker and also evaluate the statutory protection against bankers.
4. To evaluate the banking lending services and describe the procedures of advances against securities.
5. Understand the function of RBI and to create awareness about modern banking services like E-Banking and M-Banking and Internet Banking.

Subject Code: 17C44
Course Name: PARTNERSHIP ACCOUNTS

Upon completion of the course, the students will be able to

1. The transaction related to a partnership accounts, the transaction entries for adding new partners and procedures for left partner are unique in partnership.
2. Able to prepare the financial statement for partnership.
3. Enabled the knowledge of preparing admission of new partners.
4. Findings and analysing the accounts preparation for a retiring partners.
5. Understand the deceased partner's share of profit.
6. Preparing the treatment made in a joint life policy.
7. Identifying and analyzing the reason in dissolution of a firm.
8. Findings and recording the solutions of insolvent partner of a firm.

Subject Code: 17AC4
Course Name: BUSINESS MATHEMATICS

Upon completion of the course, the students will be able to

1. To provide students with reinforcement of mathematical computations.
2. To make the students to understand the process and interpretation of information to that lead to logical conclusion through common business maths.
3. Use the simple interest and compound interest method in solving the relevant problems in financial sector.
4. To understand the concepts in ratio, proportion and time value.

Subject Code: 17SEC41
Course Name: FINANCIAL MARKETS AND SERVICES

Upon completion of the course, the students will be able to

1. Understand the function of financial system.
2. To know the function on new market issues.
3. Describes the types of mutual funds.

Subject Code: 171SEC4P
Course Name: MS OFFICE PRACTICAL

Upon completion of the course, the students will be able to

1. Acquire the skill of entering text, selecting, copying and pasting the text in MS-Word.
2. Acquire the practical knowledge of creating table and deleting the rows and columns in MS-Word.
3. Entering data in MS-Excel and to know the methodologies in Power point Presentation.

SEMESTER - V

Subject Code: 17C51
Course Name: CORPORATE ACCOUNTING

Upon completion of the course, the students will be able to

1. Learn about the journal entries of issue of shares and issue of debentures.
2. To know about the meaning of companies sand working style of companies.
3. Learn about the evaluation methods of shares, goodwill and overall performance of companies.
4. Work on the calculation of profits before and after incorporation of companies.
5. Learn about the concept of sources of redemption of debentures and redemption of preference shares.

Subject Code: 17C52
Course Name: COMMERCIAL LAW

Upon completion of the course, the students will be able to

1. To Understand the Legal Environment of business and the statutory rules enforceable through agreements.
2. To know the law of contract, breach of contract and its remedies.
3. To learn about the nature of obligations and rights associated with parties of contract Act.
4. To enable the students to appreciate the laws governing agency contracts.
5. The students are exposed to the knowledge on concepts of sale, agreement to sell and also the rights of an unpaid seller

Subject Code: 17C53
Course Name: TALLY LAB

Upon completion of the course, the students will be able to

1. Describe the tally screen components in maintenance of company data preparation of trial balance, profit and loss account and balance sheet.
2. Identify the Inventory details in stock category, stock group and stock item.
3. Prepare the order processing including (sales order and purchase order).
4. Understand the Bill wise details and cost Centre.
5. Categorize GST and payroll accounting.

Subject Code: 17CE5A/17CE5P
Course Name: MANAGEMENT ACCOUNTING/HUMAN RESOURCE MANAGEMENT

Upon completion of the course, the students will be able to

1. Describe objectives, relationship, advantages and limitation. Preparation of comparative statements, common statements and Trend Analysis.
2. Identify the ratio analysis or liquidity, solvency profitability, activity and capital structure.
3. Prepare the fund flow and cash flow analysis.
4. Understand the budget, budgetary control and prepare the various kinds of budgets.
5. Categorize the marginal costing and break even analysis.

Subject Code: 17CE5P
Course Name: HUMAN RESOURCE MANAGEMENT

Upon completion of the course, the students will be able to

1. Describe the concept of HRM.
2. Understand the Requirement and selection procedures in management.
3. To know the functions of trade union.

Subject Code: 17CE5C
Course Name: INCOME TAX –I/E-Commerce

Upon completion of the course, the students will be able to

1. To introduce the basic concept of Income tax.
2. Familiarize with salary head income tax and its component.
3. It helps to build an idea about income from house property.
4. It give more idea about the income from business or profession.
5. Make the students familiarize with the various concept of capital gain and others sources of income with practical problems.

Subject Code: 17CE5D
Course Name: E-COMMERCE

Upon completion of the course, the students will be able to

1. To understand the application of E-Commerce in business.
2. To know the structure of E-Commerce.
3. To know E-payment system of modern times.

Subject Code: 17SEC51
Course Name: GENERAL KNOWLEDGE

Upon completion of the course, the students will be able to

1. Develop General English Knowledge.
2. Learn the concepts of general science.
3. Learn about the Indian historical events and current affairs which is useful to the students who are appearing for competitive examination.

SEMESTER - VI

Subject Code: 17C61
Course Name: SPECIAL ACCOUNTS

Upon completion of the course, the students will be able to

1. Know about the companies accounts.
2. Get the knowledge of banking system.
3. Learn about working format of companies.
4. Understand the concepts of investment in mutual funds.
5. Learn about the dissolution of a company.

Subject Code: 17C62
Course Name: INDUSTRIAL LAW

Upon completion of the course, the students will be able to

1. To learn the salient features of workers welfare, wages regulations and the norms governing the working condition.
2. Students are able to understand the benefits of trade union and identify the forms of industrial action.
3. Students will know about the judicial setup, Labour laws, and its relationship with industry.
4. To learn about the rate of compensation payable on the death or occupational diseases and settlement of a claim.
5. Students will learn about legislations relating wage fixation and revisions.

Subject Code: 17C63
Course Name: FINANCIAL MANAGEMENT

Upon completion of the course, the students will be able to

1. Calculate common investment criteria and project cash flows associated with corporate project evaluation.
2. Apply measures of cost on capital and financial leverages to form long term financial policies for business.
3. Judge the merits of over borrowing on purchase of assets.
4. Describe the common factors influencing dividend policy.
5. Describe application of options in financial management.
6. Judge the capital investment decisions and financial policies made on valuations of business.

Subject Code: 17CE6A/17CE6B
Course Name: INCOME TAX-II/SERVICE MARKETING

Upon completion of the course, the students will be able to

1. To explain all set off carry forward.
2. To learn all deductions on gross total income.
3. To calculate the assessment of individuals total income.
4. To Assessment of firm and companies.
5. To explained clearly the rules and regulations governing the income tax.

Subject Code: 17CE6B
Course Name: SERVICE MARKETING

Upon completion of the course, the students will be able to

1. To understand the Concepts, Principle and Practice of Service Marketing.
2. To help the students to know about the services marketing mix and consultancy service.
3. To identify the various sectors in service industry and International service.

Subject Code: 17SEC61
Course Name: SOFT SKILLS FOR JOB SEEKERS

Upon completion of the course, the students will be able to

1. Develop the skill of resume writing and placing application for jobs.
2. Understand the concept of group discussion and interviews.
3. To learn about the steps to be moved in achievement the goals.

Subject Code: 17SEC62
Course Name: QUANTITATIVE APTITUDE AND REASONING SKILL

Upon completion of the course, the students will be able to

1. Learn about the aptitude and reasoning skill techniques
2. Understand problem solving technique in competitive examination.

DEPARTMENT OF MATHEMATICS

U.G.

DEPARTMENT OF MATHEMATICS

Programme Code: M **Programme Name: B.Sc. Mathematics**

Programme Outcomes

1. To use Mathematical knowledge to analyze and solve problems.
2. To create Mathematical models, formulate precise statements and reason out logically.
3. To derive solutions for the models developed for a better functioning of the real world systems.
4. To create or select an appropriate technique in research methods including analysis, interpretation of data and synthesis of the information to provide valid conclusions.
5. To use the modern tools and software for obtaining solutions to the desired accuracy.

Programme Specific Outcomes

1. To be conscious of the environmental hazards and contribute to its minimization scientifically.
2. To apply ethical principles and commit to professional ethics, responsibilities and norms.
3. To recognize the need for individual and team work in an inter-disciplinary environment and participate effectively.
4. To present Mathematics clearly and precisely to an audience of peers, faculty and others.
5. To analyse Operations Research techniques, proficiency, especially in the execution of any specific projects.
6. Train intellectual minds to use mathematics to solve problems in day to day life.

Course Outcomes

SEMESTER - I

Subject Code: 17M11
Course Name: CALCULUS

Upon the Completion of this course, the students will be able to

1. Comprehend the concepts and methods of finding envelopes, curvature, evolutes and involutes
2. Understand the significance of maxima and minima for function of two variables.
3. Perceive the various properties like Beta and Gamma functions.

Subject Code: 17M12
Course Name: THEORY OF EQUATIONS & NUMBER SYSTEM

Upon the Completion of this course, the students will be able to

1. Describe the association between roots, coefficients and the sum of the power of the roots of an equation, Newton's Theorem.
2. Demonstrate ability to cover a topic in increase the roots, decrease the roots and removal of terms.
3. Understand the significance of Descarte's rule of signs, Rolle's Theorem and Theory of Numbers.

Subject Code: 17NMM1
Course Name: MATHEMATICS FOR COMPETITIVE EXAMINATION

Upon the Completion of this course, the students will be able to

1. Gain the Knowledge of Calculating Simple Interest and Compound Interest.
2. Express the logarithms of a product as a sum of logarithms.
3. Understand how to calculate Time, Distance, Surface area and Volume.

SEMESTER – II

Subject Code: 17M21

Course Name: SEQUENCE AND SERIES

Upon the completion of the course, the students will be able to

1. Describe the behaviour related to Sets, Function, Bounded, Algebra of limits and behaviour of Monotonic Sequence.
2. Analyse how to prove Cauchy's limit theorems, Kummer's Test and Root Test.
3. Gain the knowledge of some simple techniques for tests of convergence of series, alternating series, rearrangement of series and Fourier Series.

Subject Code: 17M22
Course Name: DIFFERENTIAL EQUATIONS

Upon the completion of the course, the students will be able to

1. Classify the Linear equation with constant coefficients and compute C.F and P.I
2. Evaluate the solution of exact equation, total differential equation and Lagrange's equation
3. Discuss the differential equation problem using Laplace transform and its inverse.

Subject Code: 17NMM2
Course Name: MATHEMATICS FOR COMPETITIVE EXAMINATIONS-PAPER -II

Upon the completion of the course, the students will be able to

1. Depict the basic concepts of probability functions.
2. Gain the Knowledge of calculating True Discount, Banker's Discount, Height and Distance.
3. Demonstrate the Odd Man Out & Series.

SEMESTER – III

Subject Code: 17M31

Course Name: MODERN ALGEBRA

Upon the completion of the course, the students will be able to

1. Understand the basic concepts of Groups and Subgroups.
2. Inculcate an insight into Cosets and Lagrange's Theorem.
3. Understand the concept of Normal Subgroups, Quotient Groups, Isomorphism, Homomorphism and Rings.

Subject Code: 17ME3A
Course Name: OPERATIONS RESEARCH

Upon the completion of the course, the students will be able to

1. Identify and develop operational research models from verbal description of the real system.
2. Understand the Mathematical tools to solve Optimization problem, Transportation & Assignment problem.
3. Comprehend the usage of game theory & simulation for solving business problem

Subject Code: 17ME3B
Course Name: ASTRONOMY

Upon the completion of the course, the students will be able to

1. Describe the science of cosmology and its correspondence to other fields of science
2. Identify and describe cosmology's current unanswered questions.
3. Explain how the scientific method and quantitative arguments are used in cosmology.

Subject Code: 17SEM31
Course Name: APPLICATIONS OF DIFFERENTIAL EQUATIONS

Upon the completion of the course, the students will be able to

1. Analyse and Evaluate the Orthogonal Trajectories, Growth & Decay.
2. Solve the continuous compound interest and brachistochorne problem.
3. Describe Tautochronous property of the cycloid, simple electric circuits and Simple harmonic motion.

SEMESTER – IV

Subject Code: 17M41
Course Name: GRAPH THEORY

Upon the completion of the course, the students will be able to

1. Depict the basic concepts of graph theory.
2. Illustrate Blocks, Connectivity, Eulerian, Hamiltonian graphs and Trees.
3. Gain knowledge of Matchings, planar and Colourability

Subject Code: 17ME4A
Course Name: STATICS

Upon the completion of the course, the students will be able to

1. Apply the basic principles of classical particles in mechanics to the analysis of particles subjected to forces.
2. Remember the notions of friction and equilibrium of strings and deploy them in solving the problems.
3. Analyze the basics of coplanar forces and equilibrium of forces acting on a rigid body and solving the problems.

Subject Code: 17ME4B
Course Name: AUTOMATA THEORY AND FORMAL LANGUAGE

Upon the completion of the course, the students will be able to

1. Remember the concepts of Mathematical Logic.
2. Explain the implication problems using truth table, replacement process and rules of inference.
3. Solve normal forms of given logical expression.

Subject Code: 17SEM41
Course Name: ANALYTICAL GEOMETRY OF THREE DIMENSIONS

Upon the completion of the course, the students will be able to

1. Understand the geometrical relationships between lines and planes and also planes and sphere.
2. Obtain the knowledge of angle bisectors and Distance between two planes.
3. Develop the acquaintance of the principles and techniques of Analytical geometry of three dimensions and to use them to solve problems.

SEMESTER – V

Subject Code: 17M51
Course Name: MODERN ANALYSIS

Upon the completion of the course, the students will be able to

1. Understand the concepts of countable sets, uncountable sets, several standard concepts of metric spaces and their Properties.
2. Identify the continuity of a function defined on a metric spaces and homeomorphisms.
3. Introduce the concept of Connectedness, Compactness and Characterization for Compactness.

Subject Code: 17M52
Course Name: STATISTICS-I

Upon the completion of the course, the students will be able to

1. Understand the basic Statistical concepts and gain the knowledge on various aspects of curve fitting of curves and discuss remonstrate the concept of linear regression and correlation.
2. Comprehend the concept of attributes and to identify formulates and solves the problems and applies various types of index methods to data collection.
3. Use the terminology of probability and determine whether two events are mutually exclusive and are independent.

Subject Code: 17M53
Course Name: DYNAMICS

Upon the completion of the course, the students will be able to

1. Analyze the motion of projectiles in different angles.
2. Discuss the direct impact and Oblique impact of two spheres
3. Apply the concept of Simple harmonic motion and find the period and amplitude of S.H.M

Subject Code: 17M5A
Course Name: LINEAR ALGEBRA

Upon the completion of the course, the students will be able to

1. Generalize the concepts of a real vector space and subspace.
2. Investigate properties of vector spaces and subspaces using by linear transformations.
3. Express a system of linear equations in a matrix form.

Subject Code: 17ME5B
Course Name: FUZZY SETS

Upon the completion of the course, the students will be able to

1. Gain the knowledge of basic concepts of fuzzy sets and fuzzy logic
2. Analyze the operations on fuzzy sets.
3. Understand the fuzzy relations.

Subject Code: 17AA51
Course Name: PROGRAMMING IN C

Upon the completion of the course, the students will be able to

1. Revise the basic concepts of programming and understand about data types, input, and output statements and write simple programs.
2. Explain about decision making statements like if, if else, else if ladder, switch, goto etc.
3. Explain and Use the concept of one dimensional array, two dimensional array and operators in Programs.

Subject Code: 17AA5P
Course Name: C PRACTICALS

Upon successful completion of Programming Language C- Practical students will be able to

1. Create different programs using if, if else, for , arrays, functions and pointers and prepare the students to write programs.
2. Apply the concept of structures and file handling to develop programs.

Subject Code: 17SEM51
Course Name: VECTOR CALCULUS

Upon the completion of the course, the students will be able to

1. Determine the differentiate Vector fields.
2. Understand how to find the solution of Problems in Divergence, curl and Solenoidal Vector.
3. Calculate an insight into the Stokes theorem.

Subject Code: 17SEM52
Course Name: QUANTITATIVE APTITUDE

Upon the completion of the course, the students will be able to

1. Gain knowledge to solve the problems on Numbers and Ages.
2. Calculate the profit and Loss -Ratio.
3. Understand how to calculate the Time, Distance and Permmutations.

SEMESTER – VI

Subject Code: 17M61

Course Name: COMPLEX ANALYSIS

Upon the completion of the course, the students will be able to

1. Define continuity, differentiability of a complex functions and be familiar with the Cauchy – Riemann equations.
2. Learn the role of bilinear transformation.
3. Classify the nature of singularities, poles and residues

Subject Code: 17M62

Course Name: STATISTICS –II

Upon the completion of the course, the students will be able to

1. Gain Statistical Knowledge to identify and Evaluate Problems.
2. Identify the Probability distribution and the test of hypothesis.
3. Understand the Sample Size in Large and Small Sample Space.

Subject Code: 17M63

Course Name: NUMERICAL METHODS

Upon the completion of the course, the students will be able to

1. Demonstrate various numerical algorithms for solving simultaneous linear algebraic equations.
2. Apply numerical methods to obtain approximate solutions to mathematical problems and find the roots of transcendental equations.
3. Derive numerical methods for various mathematical operations and tasks, such as interpolation, differentiation, integration, the solution of linear , nonlinear equations, and differential equations.

Subject Code: 17AA61

Course Name: OBJECT –ORIENTED PROGRAMMING WITH C++

Upon the completion of the course, the students will be able to

1. Identify data and understand the basic concepts in Object Oriented Programming C++
2. Apply concepts of arrays and friend function for program development and execution.
3. Evaluate the data and use constructors, destructors and operator overloading in the program for execution.

Subject Code: 17AA6P
Course Name: C++ PRACTICALS

Upon the completion of the course, the students will be able to

1. Identify data and understand the basic concepts in Object Oriented Programming C++.
2. Apply concepts of arrays and friend function for program development and execution.
3. Evaluate data and use constructors, destructors and operator overloading in the program for execution.

Subject Code: 17SEM61
Course Name: DISCRETE MATHEMATICS

Upon the completion of the course, the students will be able to

1. Analyse TF statement and Connectives.
2. Obtain the knowledge about Tautology and Lattices.
3. Understand how to introduce Recurrence relation.

Subject Code: 17SEM62
Course Name: COMBINATORICS

Upon the completion of the course, the students will be able to

1. Understand logical notation to define and reason about fundamental mathematical concepts such as sets, relations, functions and integers.
2. Identify the numbers of possible outcomes of elementary combinatorial processes.
3. Analyze probabilities, discrete distributions and expectations.

Subject Code: 17AM1
Course Name: ALLIED MATHEMATICS-I

Upon the completion of the course, the students will be able to

1. Describe the relations between roots and the coefficients and analyse the roots upto two decimals by Newton's, Horner's method.
2. Formulate the reduction formula for $Sin^{n}x$, $cos^{n}x$, $tan^{n}x$, $sec^{n}x$, $cot^{n}x$, $cosec^{n}x$, and $sin^{m}xcos^{m}x$.
3. Understand the basic concepts of Hyberbolic functions, complex numbers and To Know the direction cosines , direction ratios of a line angle between two straight line.

Subject Code: 17AM2
Course Name: ALLIED MATHEMATICS – II

Upon the completion of this course, students will be able to

1. Applying the differential operator to find Gradient, Divergence & Curl.
2. Prepare the students to apply fundamental concepts & working knowledge in algebra to their field.
3. Understand the concepts of correlation and regression.

Subject Code: 17AM3
Course Name: ALLIED MATHEMATICS –III

Upon the completion of the course, the students will be able to

1. Understand the basic concepts of differential equations and particular integral.
2. Obtain the knowledge of how to find the solution of Laplace transform and Inverse Laplace transform and Application of differential equation.
3. Understand the concepts of analytic functions and bilinear transformation and the basic concepts of groups.

Subject Code: 17AM4
Course Name: ALLIED MATHEMATICS –IV

Upon the completion of the course, the students will be able to

1. Understand the basic concepts of Linear Programming Problems and solve the problems of Graphical Method, Simplex method, Big-M method and Two phase method.
2. Formulate of the Transportation Problems
3. Construct the assignment problems for the given algorithms.

Subject Code: 17AMS1
Course Name: DISCRETE MATHEMATICS

Upon the completion of the course, the students will be able to

1. Understand the basic principles of sets and operations in sets.
2. Solve problems in matrix algebra and Construct Truth table for the given proposition, interpret tautology and equivalences
3. Understand the concept of lattices, Boolean algebra and graph theory.

Subject Code: 17AMS2/17AMJ2
Course Name: RESOURCE MANAGEMENT TECHNIQUES

Upon the completion of the course, the students will be able to

1. Explain basic concepts of LPP, Slacks and surplus variable.
2. Solve the simplex methods, two phase method and Big-M method.
3. Illustrate Assignment problem and Transportation problem.

Subject Code: 17AMS3/17AMJ3
Course Name: GRAPH THEORY

Upon the completion of the course, the students will be able to

1. Illustrate the different types of graphs.
2. Demonstrate walk, trail and path.
3. Describe Eulerian and Hamiltonian graph

Subject Code: 17AMS4/17AMJ4
Course Name: NUMERICAL METHODS

Upon the completion of the course, the students will be able to

1. Describe the relation between roots, coefficient and transformation of equation.
2. Understand the concept of curve fitting algebraic and transcendental equation.
3. Solve the simultaneous equation and Interpolation.

DEPARTMENT OF BBA

U.G.

DEPARTMENT OF BUSINESS ADMINISTRATION

Programme Code: B **Programme Name: B.B.A**

Program Outcomes

1. Understand to Business management.
2. Develop Entrepreneurship skills
3. Develop critical and Analytical thinking abilities
4. Develop Interpersonal Skill.
5. Develop critical and Analytical Thinking Abilities.
6. Create awareness about the Ethical and Sustainable. Businesses practices and demonstrate sensitivity to social ethical and sustainability issues.
7. Provide Global perspectives.

Program Specific Outcomes

On completion of B.B.A. the students would be able to

1. Acquire conceptual clearing of various functional areas such as production, marketing, finance etc.,
2. Ability to analyze various functional issues affecting the business organization
3. Analyse and interpretate the data which is used in Decision Making
4. Demonstrate ability to evolve strategies for organizational benefits
5. Demonstrate the ability to develop models / frameworks to reflect critically on specific business contexts
6. Demonstrate Effectively Oral and Written Communication
7. Demonstrate Ability to work in Groups
8. Demonstrate understanding of social cues and contexts in social interaction
9. Develop Ethical Practices and imbibe Values for Better Corporate Governance
10. Understand ethical challenges and choice in business setting
11. Analyze Global Environment and its impact on Business
12. Understand the ecosystem of start up in the country
13. Demonstrate the ability to create business plans

Course Outcomes

Semester-I

Subject Code: 171B1

Course Name: BUSINESS COMMUNICATION

Upon completion of the course, the students will be able to

1. Understand the principles of letter writing and structure of Business Letter.
2. Understand different strategies to adopt while communicating with different personalities with different goals.
3. Understand communication process and barriers to communication.

Subject Code: 17B11
Course Name: PRINCIPLES OF ACCOUNTING

Upon completion of the course, the students will be able to

1. Show proficiency in basic accounting concepts, conventions and understanding of the accounting process.
2. Understand the process and preparation of financial statements and to apply principles in preparation of accounting records.
3. Prepare financial statements in accordance with generally accepted Accounting Principles (GAAP).

Subject Code: 17B11
Course Name: PRINCIPLES OF MANAGEMENT

Upon completion of the course, the students will be able to

1. Develop familiarity with the functions of Management.
2. Acquire themselves with the latest development in the field of Management
3. Understand realistic and practical applications of management concepts.

Subject Code: 17AB11
Course Name: BUSINESS ECONOMICS

Upon completion of the course, the students will be able to

1. Apply their knowledge in risky business situation and take right decision.
2. Learn how firms analyze market demand and the internal costs, how firms interact in different market structures and make price, output decision
3. Apply the concepts of price, cross and income elasticity.

Subject Code: 17SEB1P
Course Name: ACCOUNTING PACKAGING I - PRACTICAL

Upon completion of the course, the students will be able to

1. Develop the application of computer knowledge in Accounting System.
2. Get hold of adequate knowledge in Computerized Inventory.
3. Familiarise the view of various Accounting Reports.

Subject Code: 17NMB1
Course Name: PERSONALITY DEVELOPMENT

Upon completion of the course, the students will be able to

1. Become self-confident by mastering inter-personal skills, team management skills, and leadership skills.
2. Develop all-round personalities with a mature outlook to function effectively in different circumstances.
3. Develop broad career plans, evaluate the employment market, and identify the organisations.

Semester - II

Subject Code: 171B2
Course Name: INDIVIDUAL DEVELOPMENT

Upon completion of the course, the students will be able to

1. Develop and exhibit the accurate sense of self.
2. Develop and nurture a deep understanding of personal motivation
3. Understand and practice personal and professional responsibility.

Subject Code: 17B21
Course Name: COST ACCOUNTING

Upon completion of the course, the students will be able to

1. Analyze implications of cost in managerial decisions.
2. Understand various methods and techniques of cost management.
3. Acquaint with functions of store keeping.

Subject Code: 17B22
Course Name: ENVIRONMENT OF BUSINESS

Upon completion of the course, the students will be able to

1. Identify and evaluate the complexities of business environment and their impact on the business.
2. Analyze the relationships between Government and business and understand the political, economic, legal and social policies of the country.
3. Analyze current economic conditions in developing emerging markets, and evaluate present and future opportunities.

Subject Code: 17AB21
Course Name: BANKING LAW AND PRACTICE

Upon completion of the course, the students will be able to

1. Demonstrate a comprehension of the principles of banking law and its relationship to banks and customers.
2. Engage in critical analysis of the practice of banking law from a range of perspectives.
3. Organise information as it relates to the regulation of banking services and the issues to which that information gives rise.

Subject Code: 17SEB2P
Course Name: ACCOUNTING PACKAGE II- PRACTICAL

Upon completion of the course, the students will be able to

1. Work with well-known accounting software i.e. Tally.
2. Create their own company and familiar with accounting voucher entries.
3. Provide an in-depth knowledge on the concepts and practice of management accounting and generate require reports for managerial decision making.

Subject Code: 17NMB2
Course Name: BODY LANGUAGE

Upon completion of the course, the students will be able to

1. Learn about the Characteristics of Body Language.
2. Know the various gestures in Body Language.
3. Acquaint themselves with applications of body language in business

Semester - III

Subject Code: 17B31
Course Name: BUSINESS STATISTICS

Upon completion of the course, the students will be able to

1. Familiarize with classification, tabulation and graphical representation of statistical data.
2. Able to solve the industrial problems by using analytical skills.
3. Understand how the research works to be done in future.

Subject Code: 17B32
Course Name: ORGANISATIONAL BEHAVIOUR

Upon completion of the course, the students will be able to

1. Analyse the behaviour of individuals and group in organisations in terms of organisational behaviour theories, models and concepts.
2. Demonstrate a critical understanding of organisational behaviour theories and current empirical research associated with the topics covered in this course.
3. Compare and contrast different types, roles and styles of managers across organisations.

Subject Code: 17B33
Course Name: COMPUTER APPLICATION IN BUSINESS

Upon completion of the course, the students will be able to

1. Know about the database in Excel- Graphs and Charts
2. Familiarise with creating, saving and executing HTML document.
3. Understand editing, saving a power point presentation.

Subject Code: 17B3P
Course Name: COMPUTER APPLICATION IN BUSINESS – PRACTICAL

Upon completion of the course, the students will be able to

1. Acquire practical knowledge about MS Office.
2. Be familiar with computer concepts and Office automation tools.
3. Perform practical training on using Internet based applications.

Subject Code: 17B34
Course Name: MARKETING MANAGEMENT

Upon completion of the course, the students will be able

1. To identify the role and significance of various elements of marketing mix.
2. To evaluate the role and relevance of marketing organization in current marketing conditions.
3. Understand the marketing concepts in global environment and its relevance.

Subject Code: 17AB31
Course Name: COMPANY ORGANIZATION

Upon completion of the course, the students will be able to

1. Know about the legal aspects of business.
2. Perceive the Articles of Association and Memorandum of Association.
3. Become more confident in formation of company.

Subject Code: 17SEB31
Course Name: STRESS MANAGEMENT

Upon completion of the course, the students will be able to

1. Maintain a stress awareness log include identification of causes, symptoms and analysis of effects.
2. Gather information on current stress management techniques and evaluate personal relevance.
3. Practice specific techniques, track effectiveness and revise to meet personal preference.

Semester - IV

Subject Code: 17B41
Course Name: BUSINESS MATHEMATICS

Upon completion of the course, the students will be able to

1. Apply the knowledge in mathematics (algebra, matrices, calculus)in solving business problems
2. Analyse and demonstrate mathematical skills required in mathematically intensive areas in Economics and business.
3. Integrate concept in international business concepts with functioning of global trade.

Subject Code: 17B42
Course Name: MATERIALS MANAGEMENT

Upon completion of the course, the students will be able to

1. Understand how the materials are managed in production.
2. Sensitised the students on the materials management functions.
3. Realise the importance of materials both product and service.

Subject Code: 17B43
Course Name: ENTREPRENEURIAL DEVELOPMENT

Upon completion of the course, the students will be able to

1. Become aware of entrepreneurship opportunities available in the society for the entrepreneur.
2. Acquaint them with the challenges faced by the entrepreneur.
3. Develop the motivation to enhance entrepreneurial competency.

Subject Code: 17B44
Course Name: CUSTOMER RELATIONSHIP MANAGEMENT

Upon completion of the course, the students will be able to

1. Critically analyse an organisation's relational strategies with stakeholder groups that affect how well it meets customer needs.
2. Formulate and assess strategic, operational and tactical CRM decisions.
3. Plan and conduct an investigation on an aspect of CRM, and communicate findings in an appropriate format.

Subject Code: 17AB41
Course Name: DISASTER MANAGEMENT

Upon completion of the course, the students will be able to

1. Make out the fundamentals of disaster assessment and environmental impact assessment.
2. Comprehend the various institutional agencies for disaster management.
3. Facilitate disaster preparedness, monitoring risks and emergency management.

Subject Code: 17SEB41
Course Name: COUNSELLING

Upon completion of the course, the students will be able to

1. Understand the various stages of counselling.
2. Solve the problems in the real life situations.
3. Develop counselling skills.

Semester - V

Subject Code: 17B51
Course Name: PRODUCTION MANAGEMENT

Upon completion of the course, the students will be able to

1. Gain knowledge about managing production processes.
2. Enhance better understanding of modern production techniques.
3. Understand the quality management

Subject Code: 17B52
Course Name: MANAGEMENT ACCOUNTING

Upon completion of the course, the students will be able to

1. Critically analyse and provide recommendations to improve the operations of organisations through the application of management accounting techniques.
2. Analyse Cost- Volume- Profit- techniques to determine managerial decision.
3. Apply management accounting and the objectives in the way that demonstrates a clear understanding of ethical responsibilities.

Subject Code: 17B53
Course Name: RESEARCH METHODOLOGY

Upon completion of the course, the students will be able to

1. Grasp and use the concept of research methodology.
2. Judge the reliability and validity of experiments and perform exploratory data analysis.
3. Recognize the method of data collection and how to prepare the questionnaire.

Subject Code: 17BE5A
Course Name: SERVICES MARKETING

Upon completion of the course, the students will be able to

1. Develop an understanding services, and distinguish between products and services
2. Examine the major elements needed to improve the marketing of services
3. Identify roles of relationship marketing and customer service in adding value to the customer's perception of a service.

Subject Code: 17BI5
Course Name: INSTITUTIONAL TRAINING

Upon completion of the course, the students will be able to

1. Acquire knowledge of the current requirements of raw-materials and technologies used for production process in the industry.
2. Gain practical knowledge about various functional areas like purchasing, production, finance and marketing.
3. Apply theoretical knowledge in industrial applications.

Subject Code: 17SEB51
Course Name: SOFT SKILLS

Upon completion of the course, the students will be able to

1. Effectively communicate through verbal communication and improve the listening skills.
2. Become more effective individual through goal/target settings, self-motivation and practicing creating thinking.
3. Function effectively in multi- disciplinary and heterogeneous teams through the knowledge of team work, Inter- personal relationships, conflict management and leadership quality.

Subject Code: 174EV5
Course Name: ENVIRONMENTAL STUDIES

Upon completion of the course, the students will be able to

1. Understand the concepts and methods from ecological and physical science and their application in environmental problem solving.
2. Acquire awareness about immediate/wider surroundings through lived experience on various related to daily life.

Subject Code: 17B61
Course Name: HUMAN RESOURCE MANAGEMENT

Upon completion of the course, the students will be able to

1. Understand the role of human resource management in organisations and the factors shaping that role.
2. Understand key concepts and theories from the field of HRM.
3. Apply key course concepts to actual HRM problems in organisations.

Subject Code: 17B62
Course Name: FINANCIAL MANAGEMENT

Upon completion of the course, the students will be able to

1. Tackle common practical financial problems of business.
2. Evaluate the economic condition and relating them to financial decision in the organisation.
3. Understand how to make investment decisions.

Subject Code: 17B63
Course Name: MANAGEMENT INFORMATION SYSTEM

Upon completion of the course, the students will be able to

1. Understand the basic concepts and technologies in the field of MIS.
2. Understand the role of information systems in organisations, the strategic management processes and the implication for the management.
3. Have the knowledge of the core activities in the system development process.

Subject Code: 17B64
Course Name: BRAND MANAGEMENT

Upon completion of the course, the students will be able to

1. Demonstrate understanding of brands and brand management in context with brand equity.
2. Grasp the relation between various components of a brand and brand value.
3. Explore key components of brand positioning and how these components work together in creating brand strategy.

Subject Code: 17BE6A
Course Name: RETAIL MANAGEMENT

Upon completion of the course, the students will be able to

1. Apply a broad theoretical and technical knowledge of retail management to understand opportunities and challenges for creating excellent retailing experience.
2. Critically analyse and summarise market information to assess the retailing environment and formulate effective retail strategies.
3. Comprehend visual merchandising and its effect on store layout and design.

Subject Code: 17SEB61
Course Name: INTERVIEW TECHNIQUE

Upon completion of the course, the students will be able to

1. Perceive the various ways of gathering information by asking questions.
2. Articulate the importance of self-presentation.
3. Develop the skills needed for approaching different types of Interviews.

Subject Code: 174VE6
Course Name: VALUE EDUCATION

Upon completion of the course, the students will be able to

1. Understanding about the purpose of their life
2. Apprehend and start applying the essential steps to become good leader
3. Emerge as responsible citizens with clear conviction to practice value in their life

Subject Code: 19BC1
Course Name: HOSPITAL MANAGEMENT

Upon completion of the course, the students will be able to

1. Solve complex problems in the health – care sector by employing analytical skills.
2. Apply health – care management concepts in industry.
3. Establish a health - care organisation in line with the needs.

DEPARTMENT OF COMPUTER SCIENCE U.G.

DEPARTMENT OF COMPUTER SCIENCE

Programme Code: S **Programme Name: B.Sc. Computer Science**

Program Outcomes

1.To acquire the sound knowledge in theory and practical in the discipline of computer science.(Global)
2.Ability to use assortment of programming languages and tools to develop computer programs that are effective to solve the problems.(Global)
3.Understand the basic concept of computer architectures, including computer hardware and networking. (National)
4.Design and analyze the particular specifications of algorithms, procedures, and interaction behavior. (Regional)

5.Students undertook projects which offer opportunities for interaction with academia and industry. Students will be able to work in teams to build software systems and apply the computing knowledge to the benefit of the society. (Global)

6.An understanding of professional, ethical, legal, security, and social issues and responsibilities for the computing profession (Regional)

Program Specific Outcomes

On completion of B.Sc Computer Science Programme, the students would be able to

1. Know the programming concepts and methodology & the functionality of hardware and software aspects of computer systems. (Global)
2. Provide effective and efficient real time solutions using acquired knowledge in various domains such as C, C++, JAVA, Web designing, RDBMS, Linux, DOT NET. (Global)
3. Apply problem-solving skills and the knowledge of computer science to solve real world problems. (Global)

4. Use software development tools, software systems, and modern computing platforms
5. Develop technical project reports for the requirements in society. (National)

6. Apply the knowledge gained through project experience in jobs. (Global)

Course Outcomes

Subject Code: 17S11
Course Name: C PROGRAMMING (National)

Upon completion of the course, the students will be able to

1. Demonstrate an understanding of computer programming language concepts. To be able to develop C programs on MS-DOS platform.
2. Design and develop Computer programs, analyzes, and interprets the concept of pointers, declarations, initialization, operations on pointers and their usage.
3. Define data types and use them in simple data processing applications and to use the concept of array of structures.
4. Define union and enumeration user defined data types.
5. Develop confidence through self education and ability for life-long learning needed for Computer language.

Subject Code: 17S1P
Course Name: C PROGRAMMING LAB (National)

Upon completion of the course, the students will be able to

1. Understand the basic concept of C Programming, and its different modules.
2. Acquire knowledge about the basic concept of writing a program.
3. Demonstrate the role of Functions involving the idea of modularity.
4. Evaluate the concept of Array and pointers dealing with memory management.
5. Use the structures and unions through which derived data types can be formed.

Sub code: 17SES1P
Course Name: OFFICE AUTOMATION LAB (Regional)

Upon completion of the course, the students will be able to

1. Create Microsoft Office programs on professional and academic documents.
2. Perform documentation on accounting operations and presentation skills
3. Prepare documents, spreadsheets, make small presentations and would be acquainted with internet.
4. Acquire strong foundation in software and hardware to record, code, sort, calculate, summarize, store and communicate information.
5. Understand the dynamics of an office environment.

Sub code : 17NMS1
Course Name: COMPUTER FUNDAMENTALS (Regional)

Upon completion of the course, the students will be able to

1.Describe the usage of computers and why computers are essential components in business and society.
2. Utilize the Internet Web resources and evaluate on-line e-business system.
3. Identify categories of programs, system software and applications. Organize and work with files and folders.
4. Enhance the application software and their use to perform any software engineering activity.
5. Grasp the concept of input and output devices of Computers and how it works and recognize the basic terminology used in computer programming.

Sub code : 17S21
Course Name: PROGRAMMING IN C++ (Global)

Upon completion of the course, the students will be able to

1. Create programming principles to design and implement it in the C++ programs.
2. Debug and test programs using the fundamental elements of C++.
3. Understand the primitive data types, values, operators and expressions in C++.
4. Comprehend design issues involved with variable allocation and binding, control flow, types, subroutines, parameter passing.
5. Create their own Applications/Projects using C++ and can be deputed as a C++ programmer in IT companies.

Sub code : 17S2P
Course Name: C++ PROGRAMMING LAB (Global)

Upon completion of the course, the students will be able to

1. Identify importance of object oriented programming and difference between structured oriented and object oriented programming features.
2. Make use of objects and classes for developing programs.
3. Analyze the various object oriented concepts to solve different problems.
4. Design and test programs to solve mathematical and scientific problems using object oriented concepts.
5. C++ is used frequently in areas such as game development, hardware manufacturing, embedded systems, and for military applications.

Sub code : 17SES2P
Course Name: LINUX LAB (National)

Upon completion of the course, the students will be able to

1. Learn the basic commands of linux operating system and can write shell scripts.
2. Evaluate and apply technology resources by installing, configuring, and managing a Linux server and relevant services and applications understand the importance of maintaining a secure Linux server communicate using multiple modes of communication.
3. Process themselves in shell programming on Linux OS.
4. Apprehend the concept of shell parameters and variables.
5. Discern the readline library and its features to command line editing.

Sub code : 17NMS2
Course Name: INTERNET APPLICATIONS (Global)

Upon completion of the course, the students will be able to

1. Implement interactive web page(s) using HTML, CSS and JavaScript.
2. Design a responsive web site using HTML5 and CSS3.
3. Demonstrate Rich Internet Application.
4. Build Dynamic web site using server side PHP Programming and Database connectivity.
5. Describe and differentiate different Web Extensions and Web Services.

Sub code : 17S31
Course Name: DIGITAL PRINCIPLES AND COMPUTER ORGANIZATION (National)

Upon completion of the course, the students will be able to

1. Understand the concepts of Central Processing units, I/O, and memory.
2. Demonstrate the binary number theory, Boolean algebra and binary codes.
3. Define and design combinational systems using standard gates and minimization methods.
4. Describe and design the combinational systems of multiplexers, Demultiplexer, encoder and decoder.
5. Analyze and design the Basic Computer organization.

Sub code : 17S32
Course Name: JAVA PROGRAMMING (Global)

Upon completion of the course, the students will be able to

1. Make out the use of oops concepts.
2. Solve real world problems using OOP techniques.
3. Define the use of abstraction.
4. Describe the use of Packages and Interface in java.
5. Acquire the knowledge of exception handling, multithreaded applications with synchronization.

SUB CODE : 17S3P
Course Name: JAVA PROGRAMMING LAB (Global)

Upon completion of the course, the students will be able to

1. Use an integrated development environment to write, compile, run, and test simple object-oriented Java programs.
2. Read and make elementary modifications to Java programs that solve real-world problems. Validate input in a Java program.
3. Identify and fix defects and common security issues in code.
4. Use utility classes in the real time applications

Sub code : 17SES3P
Course Name: MULTIMEDIA LAB (Regional)

Upon completion of the course, the students will be able to

1. Handle different file formats, changing the resolution, RGB color to gray-scale image and multicolor images.
2. Design brochure and multilayer of images.
3. Perform transformation and filtering on images.
4. Create some basic operations such as painting, strokes and grouping objects.
5. Animate using shapes, twining and actions.

Sub code : 17S41
Course Name: DOT NET (Regional)

Upon completion of the course, the students will be able to

1. Understand .NET framework and can realize some of the major enhancements in the new version of VB.
2. Analyze the basic structure of VB Dot Net and features of IDE.
3. Differentiate the various controls in VB Dot NET and develop programs using controls.
4. Connect database by using ADO Dot NET and manipulate the database.
5. To serve as project leaders and team members in future.

Sub code : 17S42
Course Name: DATA STRUCTURES AND COMPUTER ALGORITHM (National)

Upon completion of the course, the students will be able to

1. Select the appropriate design techniques to solve real world problems.
2. Implement various sorting, searching, and hashing algorithms. Students will build a substantial, complex data structure.
3. Demonstrate the design and development principles in the construction of software systems of varying complexity.
4. Analyze randomized algorithms (expected running time, probability of error). Recite algorithms that employ randomization.
5. Compare between different data structures. Pick an appropriate data structure for a design situation.

Sub code : 17S4P
Course Name: DATA STRUCTURES AND COMPUTER ALGORITHM LAB (National)

Upon completion of the course, the students will be able to

1. Design and analyze the time and space efficiency of the data structure.
2. Intend the algorithms to solve the programming problems.
3. Use appropriate algorithmic strategy for better efficiency.
4. Solve problems using data structures such as linear lists, stacks, queues, hash tables, binary trees, heaps, binary search trees, and graphs and writing programs for these solutions
5. Implement / Design suitable data structures (abstract data types) as required in C++ programs.

Sub code : 17SES4P
Course Name: DOT NET Lab (Regional)

Upon completion of the course, the students will be able to

1. Creating website using ASP.Net Controls.
2. Performing Database operations for Windows Form and web applications.
3. Handle controls in Forms(message Box, Input Box), Windows MDI forms and Controls (Textbox, Creating Multi Line, Word Wrap textboxes).
4. Connect database by using ADO.NET and manipulate the database.
5. The concept of namespace includes the common, importing, referencing and creating own namespaces.

Sub code : 17S51

Course Name: OPERATING SYSTEMS (National)

Upon completion of the course, the students will be able to

1. Exhibit the design and management concepts along with issues and challenges of main memory, virtual memory and file system.
2. Understand the types of I/O management, disk scheduling, protection and security problems faced by operating systems and how to minimize these problems.
3. Apply design and development principles in the construction of software systems.
4. A high-level understanding of the structure of operating systems, applications, and the relationship between them.
5. Evaluate the requirement for process synchronization and coordination handled by operating system and analyze the memory management and its allocation policies.

Sub code : 17S52
Course Name: SOFTWARE ENGINEERING (Global)

Upon completion of the course, the students will be able to

1. Know the testing strategies and handle software product maintenance issues.
2. Apply different testing and debugging techniques and analyzing their effectiveness.
3. Analyze software risks and risk management strategies.
4. Extract and analyze software requirements specifications for different projects.
5. Define the concepts of software quality and reliability on the basis of International quality standards.

Sub code : 17S53
Course Name: RDBMS (Global)

Upon completion of the course, the students will be able to

1. Analyze Database design methodology.
2. Evaluate the difference between traditional file system and RDBMS.
3. Deal with online transactions and control Concurrency.
4. Apply DB system development life cycle to business problems
5. Understand the different types of Data Base failures and Recovery.

Sub code : 17S5P
Course Name RDBMS LAB (Global)

Upon completion of the course, the students will be able to

1. Gain knowledge about SQL Fundamentals.
2. Handle online Transactions.
3. Create Database connectivity with front-end.
4. Build Index ,Views, Procedures, Triggers and Cursers.
5. Perform all the Table join operations.

Sub code : 17SE5A
Course Name: COMPUTER GRAPHICS (Global)

Upon completion of the course, the students will be able to

1. Understand the use of object hierarchy in graphics applications.
2. Demonstrate computer graphics animation.
3. Create interactive graphics applications using graphics application programming interfaces.
4. Comprehend contemporary graphics hardware.
5. Have knowledge and understand the structure of an interactive computer graphics system, and the separation of system components.

Sub code : 17SE5B
Course Name: CLOUD COMPUTING (Global)

Upon completion of the course, the students will be able to

1. Apply the fundamental concepts in datacenters to understand the tradeoffs in power, efficiency and cost.
2. Identify resource management fundamentals, i.e. resource abstraction, sharing and sandboxing and outline their role in managing infrastructure in cloud computing.
3. Analyze various cloud programming models and apply them to solve problems on the cloud.
4. Articulate the main concepts, key technologies, strengths, and limitations of cloud computing and the possible applications for state-of-the-art cloud computing
5. Identify the architecture and infrastructure of cloud computing, including SaaS, PaaS, IaaS, public cloud, private cloud, hybrid cloud, etc.

Sub code : 17SES5P
Course Name: PYTHON LAB (Global)

Upon completion of the course, the students will be able to

1.Emphasis is placed on features unique to Python, such as tuples, array slices, and output formatting.
2.Use exception handling in Python applications for error handling and read/write files in Python.
3.Build and package Python modules for reusability and pass arguments in Python.
4.Know the concepts of lists, tuples, and dictionaries in Python programs and identify Python object type.
5.Write database applications and designing Graphical user Interfaces in Python.

Sub code: 17S61
Course Name: DATA COMMUNICATIONS AND NETWORKING (Global)

Upon completion of the course, the students will be able to

1. Understand and explain the concept of Data Communication and networks, layered architecture and their applications.
2. Analyse and Set up protocol designing issues for Communication networks.
3. Apply various network layer techniques for designing subnets and supernet and analyse packet flow on basis of routing protocols.
4. Estimate the congestion control mechanism to improve quality of service of networking application
5. Be familiar with the architecture of a number of different networks.

Sub code: 17S62
Course Name: WEB PROGRAMMING (Global)

Upon completion of the course, the students will be able to

1. Analyze and apply the role of languages like HTML, DHTML, CSS, XML, Javascript, VBScript, ASP, PHP and protocols in the workings of the web and web applications
2. Analyze a web project and identify its elements and attributes in comparison to traditional projects.
3. Build dynamic web pages using JavaScript and VBScript (client side programming).
4. Acquire and build interactive web applications.
5. Learn and create XML documents and XML Schema.

Sub code: 17S6P

Course Name: WEB PROGRAMMING LAB (Global)

Upon completion of the course, the students will be able to

1. Design and implement dynamic websites with good aesthetic sense of designing and latest technical know-how's.
2. Have a Good grounding of Web Application Terminologies, Internet Tools, E – Commerce and other web services.
3. Get introduced in the area of Online Game programming.
4. Create interactive web applications using XML, ASP.NET and PHP.
5. Familiarize the client server architecture and develop a web application using java technologies.

Sub code: 17SE6A
Course Name: DATA MINING (Global)

Upon completion of the course, the students will be able to

1. Categorize and carefully differentiate between situations for applying different data mining techniques: mining frequent pattern, association, correlation, classification, prediction, and cluster analysis
2. Acquire the knowledge in data extraction and transformation techniques.
3. Use operational database, warehousing and multidimensional need of data base to meet industrial needs.
4. Describe the components of warehousing, classification methods and clustering analysis.
5. Identify and understand the Business analysis, query tools and application, OLAP etc.

Sub code: 17SE6B
Course Name: MOBILE COMPUTING (Global)

Upon completion of the course, the students will be able to

1. Analyze and explain problems associated to localization and movements and the wireless and wired communication architecture and handling of data and business application over slow wireless networks
2. Identify business data management and security issues over slow wireless media and Working of software mobile agents over long distances
3. Learn transaction processing over wire and wireless media and various routing and communication protocols
4. Utilize QoS over wire and wireless channels and recognize CDMA and other network applications
5. Comprehend working, characteristics and limitations of mobile hardware devices including their user-interface modalities.

Sub code: 17SES6P
Course Name: PHP LAB (Global)

Upon completion of the course, the students will be able to

1. Create PHP programs that use various PHP library functions, and that manipulate files and directories.
2. Web Development with PHP/MySQL is designed to provide essential skills and hands-on experience in developing dynamic web applications using PHP and MySQL.
3. Create powerful and dynamic web applications using PHP and MySQL.
4. Setup and configure MySQL, PHP, Apache web server development environment.
5. Solve problems and insert data using PHP and MySQL and to Test, debug, and deploy web pages containing PHP and MySQL.

Sub code: 17SPR6
Course Name: PROJECT (Global)

Upon completion of the course, the students will be able to

1. Analyze a problem, and identify and define the computing requirements appropriate to its solution.
2. Design, implements, and evaluate a computer-based system, process, component, or program to meet desired needs.
3. Apply design and development principles in the construction of software systems of varying complexity.
4. Learn to accomplish shared computing design, evaluation, or implementation goals.
5. Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusion.

DEPARTMENT OF INFORMATION TECHNOLOGY U.G.

DEPARTMENT OF INFORMATION TECHNOLOGY-UG

Programme Code: I **Programme Name: B.Sc. Information Technology**

Programme Outcomes

1. Apply the knowledge of Mathematics, Science and Computing in the core information technologies.
2. Design and develop software solutions for contemporary business environments by employing appropriate problem solving strategies.
3. Analyze common business functions and identify, design, and develop appropriate information technology solutions (in web, desktop, network, and/or database applications).
4. Learn future technologies through acquired foundational skills and knowledge and employ them in new business environments.
5. Practice communication, problem solving and decision-making skills through the use of appropriate technology and with the understanding of the business environment.
6. Select and apply current techniques, skills and tools necessary for computing practice and integrate IT-based solutions into the user environment effectively.

Programme Specific Outcomes

1. Analyze and recommend the appropriate IT infrastructure required for the implementation of a project.
2. Design, develop and test software systems for world-wide network computers to provide solutions to real world problems.
3. Analyze common business functions and identify, design and develop appropriate information technology solutions.
4. Learn future technologies through acquired foundation skills and knowledge and employ them in business environments and to identify research gaps.
5. Use and apply current technical concepts and practices in the core Information Technologies of human computer interaction, information management, programming and networking.
6. Effectively integrate IT-based solutions into the user environment.

Course Outcomes

SEMESTER – I

Subject Code: 17I11
Course Name: PROGRAMMING IN C

Upon completion of the course, the students will be able to

1. Understand the basic concepts of program development statements and its syntax.
2. Differentiate the various types of arrays and Know about the various types of Functions and String handling mechanisms.
3. Grasp the Concepts of Structures and Unions.

Subject Code: 17I1P
Course Name: PROGRAMMING IN C LAB

Upon completion of the course, the students will be able to

1. Use conditional expressions and looping statements to solve problems associated with conditions and repetitions.
2. Use Arrays and Functions in programs.
3. Use pointers, structures and files handling.

Subject Code: 17AI1
Course Name: DISCRETE MATHEMATICS

Upon completion of the course, the students will be able to

1. Comprehend the notion of mathematical thinking, Mathematical proofs, and Algorithmic thinking and to apply them in problem solving.
2. Posses the Knowledge of the basics of Relations and to apply the methods in problem solving.
3. Equip to use effectively algebraic techniques to analyse basic discrete structures and algorithms.

Subject Code: 17SEI1P
Course Name: HTML AND OFFICE AUTOMATION LAB

Upon completion of the course, the students will be able to

1. Create a well-designed and well-formed, professional Web site utilizing the most current standards and practices.
2. Demonstrate knowledge in web technologies including HTML.
3. Identify Web authoring obstacles created by the availability of various web browsers and markup language versions.

Subject Code: 17NMI1
Course Name: WINDOWS TOOLS AND APPLICATIONS

Upon completion of the course, the students will be able to

1. Give students an in-depth understanding of why computers are essential components.
2. Provide hands-on use of Microsoft Office applications Word, Excel, Access and PowerPoint.
3. Completion of the assignments will result in MS Office applications knowledge and skills.

SEMESTER – II

Subject Code: 17I21
Course Name: OBJECT ORIENTED PROGRAMMING WITH C++

Upon completion of the course, the students will be able to

1. Explain the top-down and bottom-up programming approach and apply bottom up approach to solve real world problems.
2. Describe the concept of inheritance, overloading, constructors and apply real world problems.
3. Discuss the generic data type for the data type independent programming which relates it to reusability.

Subject Code: 17I2P
Course Name: OBJECT ORIENTED PROGRAMMING WITH C++ LAB

Upon completion of the course, the students will be able to

1. Ability to use the relative merits of C++ as an object oriented programming language.
2. Acquire Knowledge to implement programs in C++ Using polymorphism.
3. This lab work provides hands-on programs using C++ language learnt in theory session.

Subject Code: 17AI2
Course Name: RESOURCE MANAGEMENT TECHNIQUES

Upon completion of the course, the students will be able to

1. This module aims to introduce students to use quantitive methods and techniques for effective decisions–making.
2. Solve Linear Programming, Transportation and Assignment Problems.
3. To prepare and motivate future specialists to continue in their study by having an insightful overview of operations research.

Subject Code: 17SEI2P
Course Name: DESKTOP PUBLISHING LAB

Upon completion of the course, the students will be able to

1. Create business forms (e.g., business cards, letterhead, desk notes) and Resume.
2. Create multi-page, multicolumn documents (e.g., newsletters, magazines).
3. Understood the creating and printing greeting cards, banners, postcards, candy wrappers using CorelDraw.

Subject Code: 17NMI2
Course Name: INTRODUCTION TO INTERNET
Upon completion of the course, the students will be able to

1. Build tools that assist in automating data transfer over the Internet.
2. Employ emerging technology to satisfy challenges or opportunities faced by organizations or individuals.
3. Understood the Design and create IT-based solutions using HTML and JavaScript.

SEMESTER – III

Subject Code: 17I31
Course Name: RDBMS

Upon completion of the course, the students will be able to

1. Explain the basic concepts of relational data model, entity-relationship model, relational database design, relational algebra and SQL.
2. Design ER-models to represent simple database application scenarios.
3. Convert the ER-model to relational tables, populate relational database and formulate SQL queries on data.

Subject Code: 17I32
Course Name: DATA STRUCTURE AND ALGORITHMS

Upon completion of the course, the students will be able to

1. Students understand the advantages and disadvantages of fundamental data structures and can implement them using object oriented design principles.
2. Demonstrate an understanding of basic data structures (such as an array-based list, linked list, stack, queue, binary search tree) and algorithms.
3. Demonstrate the ability to analyze, design, apply and use data structures and algorithms to solve real time problems and evaluate their solutions.

Subject Code: 17I3P
Course Name: VB AND RDBMS LAB

Upon completion of the course, the students will be able to

1. Describe the basic structure of a Visual Basic program and main features of the integrated development environment (IDE).
2. Create applications using Microsoft Windows Forms.
3. Know how to write SQL code to build and maintain database structures.

Subject Code: 17AI3
Course Name: NUMERICAL METHODS

Upon completion of the course, the students will be able to

1. Apply numerical methods to find solution of algebraic equations using different methods under different conditions, and numerical solution of system of algebraic equations.
2. Grasping the basic elements of numerical methods with application to approximation, integration, differentiation, differential equations and algebraic equations.
3. Familiar with numerical solutions of nonlinear equations in a single variable.

Subject Code: 17SEI3P
Course Name: MULTIMEDIA LAB

Upon completion of the course, the students will be able to

1. Identify the basic tools and components of a multimedia project.
2. Apply basic elements and principles of photo editing software to achieve a great photo effect by applying effects like color, shadows, alteration of backgrounds, cropping and collage making.
3. Create simple shapes using animation editing software and design simple animation by applying shape tweens and motion tweens.

SEMESTER – IV

Subject Code: 17I41

Course Name: OPERATING SYSTEM & SYSTEM SOFTWARE

Upon completion of the course, the students will be able to

1. Describe and explain the fundamental components of a computer operating system.
2. Define, restate, discuss, and explain the policies for scheduling, deadlocks, memory management, synchronization, system calls, and file systems
3. Understand different components of system software.

Subject Code: 17I4P

Course Name: UNIX AND LINUX PROGRAMMING LAB

Upon completion of the course, the students will be able to

1. Write shell scripts in order to perform shell programming.
2. Acquire knowledge about text processing utilities, process management and system operation of LINUX.
3. Run various UNIX commands on a standard UNIX/LINUX Operating system.

Subject Code: 17I42

Course Name: COMPUTER GRAPHICS

Upon completion of the course, the students will be able to

1. List out the basic concepts used in computer graphics.
2. Develop the line and circle generation algorithms.
3. Implement various algorithms to scan, convert the basic Geometrical Primitives, Transformations, Area filling and Clipping.

Subject Code: 17AI4

Course Name: FINANCIAL AND COST ACCOUNTING

Upon completion of the course, the students will be able to

1. Acquire conceptual knowledge of basics of accounting.
2. Identify events that need to be recorded in the accounting records.
3. Equip with the knowledge of accounting process and preparation of final accounts of sole trader.

Subject Code: 17SEI4P
Course Name: TALLY LAB

Upon completion of the course, the students will be able to

1. This course helps students to work with well-known accounting software i.e. Tally.
2. Ability to create company, enter accounting voucher entries including advance voucher entries, do reconcile bank statement, do accrual adjustments, and also print financial statements, etc. in Tally software.
3. Ready with required skill for employability in the job market.

SEMESTER – V

Subject Code: 17I51
Course Name: PROGRAMMING IN JAVA

Upon completion of the course, the students will be able to

1. Knowledge of the structure and model of the Java programming language.
2. Use an integrated development environment to write, compile, run, and test simple object-oriented Java programs.
3. Propose the use of certain technologies by implementing them in the Java programming language to solve the given problem.

Subject Code: 17I52
Course Name: DIGITAL PRINCIPLES AND COMPUTER ORGANIZATION

Upon completion of the course, the students will be able to

1. Apply Arithmetic operations in any number system and various techniques to simplify the Boolean functions.
2. Build Combinational Circuits that perform arithmetic operations & Apply the knowledge of combinational and sequential logical circuits to design computer architecture.
3. Understand the input / output and Memory related concepts.

Subject Code: 17I53
Course Name: COMPUTER NETWORKS

Upon completion of the course, the students will be able to

1. Recognize the technological trends of Computer Networking.
2. Perceive and describe the layered protocol model.
3. Describe, analyze and evaluate a number of data link, network, and transport layer protocols.

Subject Code: 17I5P
Course Name: PROGRAMMING IN JAVA LAB

Upon completion of the course, the students will be able to

1. Familiarize the Internet Programming using Java Applets.
2. Apply event handling on AWT components.
3. Make a reusable software component, using Java Bean.

Subject Code: 17IE5A
Course Name: CLIENT SERVER COMPUTING

Upon completion of the course, the students will be able to

1. Comprehend the basic concepts of the client-server model.
2. Understand how Client-Server systems work.
3. Improve the performance and reliability of Client Server based systems.

Subject Code: 17IE5B
Course Name: SYSTEM ANALYSIS AND DESIGN

Upon completion of the course, the students will be able to

1. Gather data to analyze and specify the requirements of a system.
2. Build general and detailed models that assist programmers in implementing a system.
3. Design a database for storing data, a user interface for data input and output, and controls to protect the system and its data.

Subject Code: 17SEI5P
Course Name: PHP AND MYSQL LAB

Upon completion of the course, the students will be able to

1. Discuss the concepts of **PHP** and its advantages over other languages.
2. Use HTML form elements that work with any server-side language.
3. Create a **PHP** web page and perform various **MySQL** database queries.

SEMESTER – VI

Subject Code: 17I61
Course Name: SOFTWARE ENGINEERING

Upon completion of the course, the students will be able to

1. Decompose the given project in various phases of a lifecycle.
2. Perform various life cycle activities like Analysis, Design, Implementation, Testing and Maintenance.
3. Apply the knowledge, techniques, and skills in the development of a software product.

Subject Code: 17I62
Course Name: DATA MINING AND WAREHOUSING

Upon completion of the course, the students will be able to

1. Comprehend the functionality of the various data mining and data warehousing component.
2. Analyze the strengths and limitations of various data mining and data warehousing models.
3. Describe different methodologies used in data mining and data ware housing.

Subject Code: 17I6P
Course Name: WEB TECHNOLOGY LAB

Upon completion of the course, the students will be able to

1. Acquire .NET Framework and describe some of the major enhancements to the new version of Visual Basic.
2. Describe the basic structure of a Visual Basic.NET project and use main features of the integrated development environment (IDE).
3. Create applications using web Forms using ASP.NET.

Subject Code: 17IE6A
Course Name: MOBILE COMPUTING

Upon completion of the course, the students will be able to

1. Grasp the fundamentals of wireless communications.
2. Analyze security, energy efficiency, mobility, scalability, and their unique characteristics in wireless networks.
3. Apply knowledge of TCP/IP extensions for mobile and wireless networking.

Subject Code: 17IE6B
Course Name: CLOUD COMPUTING

Upon completion of the course, the students will be able to

1. Explain the core concepts of the cloud computing paradigm.
2. Apply the fundamental concepts in Cloud Services, Platforms and Application Design.
3. Analyze various cloud programming models and apply them to solve problems on the cloud.

Subject Code: 17IPR6
Course Name: PROJECT

Upon completion of the course, the students will be able to

1. Demonstrate a sound technical knowledge of their selected project topic.
2. Undertake problem identification, formulation and solution.
3. Describe the knowledge, skills and attitudes of a software engineer.

Subject Code: 17SEI61
Course Name: QUANTITATIVE APTITUDE

Upon completion of the course, the students will be able to

1. Draw conclusions or make decisions in quantitatively based situations that are dependent upon multiple factors.
2. The Quantitative Reasoning course is organized around big mathematical and statistical concepts.
3. Students will be expected to actively do Mathematics—such as analyzing data, constructing hypotheses, solving problems, reflecting on their work, and making connections.

DEPARTMENT OF TAMIL U.G.

Department of Tamil – UG

Programme Code: T **Programme Name: B.A. Tamil**

Programme Outcomes

!
2.: !ா௅௴தஅமா!மீட்ர ா! –
ணபாபடிசாபதவபா!பஒாமநா!ரூணடா!மீட்ர ளநா!ா௅௴ாவஆ !டஒாஓடா!ரா ாரடிதண ! !
! ! ஒெஒகமு ! ழபலவாவுடா!ரலடிாாநதநா!ழாஓரளீ!
3.: !ழ௨ ா ாமமஒநா!டஓாஓடா!ாதஅாாமா!மஒநணா!பூடடாாலஆ ! தெஅரளீ!
4.: !னடிளபணரா!ாடிணரமஓபலந !ரலடிாாபதவாா!ழாஓரளீ!
5.: !மீட்ர ா! – தவ ! ஒெஒகமு ! ழபலவாரளீ!
ணபாபடிசாபவணா!பணகாழமலஓடா!றுஒாஆடா!டலஓாஒசப

6.: ! –ணபாப௴சாபவா!பஒாமநா!ரலடிணலப !மடஜதி ாா!ாஜதி டிநாஒா!பூாளருட௴றிமருடா!ாடிஓனா! !
! ! ழாஓரளீ!
7.: !மீட்ர ாகலஆ ! ளெரு !டஒாஓடா! – பூமளரணா!ழரஓாஓா!ழாஓடா! !
காமடி !புஉதடாா௴ா!பூமளரலத௴டிமா!
! ! மஒநா!ழாஓரளீ!

8.: ! பணரா! காஓரநசாபவணா! ரேளாடிஎலபாா!ா௴டிலஒாஓடா!மபுமா!தெஅரளீ!
9.: ! பூாளளு !மஒதடதடி !ரவளமமுபா!ழபலவாரமநா!ரலடிணலப !ளஒகம !பூாளளலவளலபுடா!ரலடிாாநதநா!
!
! ! ழாஓரளீ!
:.: !ரலழந ணாழமலதணபாபஅனா! பூாலநாஒ !னுஅபமா!முதஒபவணா!பூரதண !ரலடிாாநதநா!ழாஓடா! ! !
! ! மபுமதடி ! தெஅரளீ!
21.: !ாமமணபாதப !முதஒடிணா!ாஜதி மஏமாமுடா!ா௴பவணா!ா௴ாஊடா!மஒநா!ழாஓரளீ!

பஓஹைணா‼ ழரவஈாஈாலஆ !

Subject Code : 171T1

Title of the paper : ! – பஈபலணபஈ‼ பரஈதமடீடஈ‼ ஊஓபதமடீடஈ‼

2.: ! டளர்பஈ ! பரஈசு ஊபவஈநஈ ! பணெ ! ரஊதளடிஈதநடீடஈ ! பரஈாரணமஈதமடீடஈ ! லெஓஈரஊ. !
3.: ! மஓபணபஈ ! பரஈதமடிஈநஈ ! ரா ஈ ! ளரூப ! ஊபஈபண ! ளௌஈடிண ! பேஈடிரஓஈதஓ ! ர்ஊகழு ! ழபலவஈரஊ. !
4.: ! பதம ! டலகஈமஊபவஈநஈ ! டநாஈழாலபஈபஈதநடீடஈ ! ஊபஈபணபதவடீடஈ ! லெஓஈகழு ! ழபலவஈரஊ. !
5.: ! ரிமஈமஈநஈ ! ரதபதடடிஈதந ! ர்ஊகழு ! ழப லா ஈஆ ! ரஈதா டிஈநஈஓஈ ! ரிமாஈ ! ரா பஈபடஈ ! ழபலவஈரஊ.
6.: ! ரிமமலவஊபவஈநஈ ! ரதஅாஈர்பதவ ! ரடஊளநடஈ ! ழளடிஈடீடஈ ! மஈஓநஈ ! ழாஓரஊ. ! !

Subject Code : 17T11

Title of the paper : மஓஈபஈலண ! – ணபஈபஈடிடஈ‼

பஓஹைணா‼ ழரவஈாஈாலஆ !

2.: ! பணலெஉாஈதஅடிஈணஈ ! – ணபஈபஈடிசஈபவஈநஈ ! ரவஊளஊ ! டலஓஈஓடஈ ! புஓஈமஈழு ! லாஈாஆ ! ழளடிஈழு ! ளேலடிஈபஈநஈஓ ! !
! ! லெஓஈரஈதநாஈ ! ழாஓரஊ. !
3.: ! மஓபண ! – ணபஈபஈடிரலமஈபவஈநஈ ! ஊகஈமதந ! லுஅஈஅமஈதமடீடஈ ! ளரூப ! கஅாஈாஈடிதணடீடஈ ! லெஓஈரஊ. !
4.: ! பரஈதம ! பதம ! கலஅபடஈ ! ர்மஈநடஈ ! னதஎகதஅ ! பேஈடிரஓஈதஓாஈ ! ரதஅபஈபஈநஈஓ ! !
! ! ரதஅாஈாலஓஈஓதணாஈ ! ழாஓரஊ. !
5.: ! ரதஅாஈாலவஊபவஈநஈ ! மஈஓநஈ ! ழரவஈாஈாலஆ ! ரதஅாஈர்பவஈ ! னஏரலபஈபாஈாஅஅ ! கூ ணஈ ! ழாலநஈஓதர ! !
! ! ராஓஈஓஈ ! ர்ஊகழு ! ழபலவஈரஊ. !
6.: ! டளர் ! – ணபஈபஈடிசஈபதவ ! லெஉாஈதஅடிலப ! ழப லா ஈஆ ! கரஈநு ! – ணபஈபஈடிசஈபதவ ! ரடஊளநடஈ ! !
! ! ழளடிஈபஈநஈஓ ! லெஓஈதர ! ழாஓரஊ. ! !

Subject Code : 17T12

Title of the paper : மீடீ ஈ! – ணபஈபஈடி ! ரஎணலஓ !

!

பஓஹைணா‼ ழரவஈாஈாலஆ !

2.: ! மீடீ ஈநஈ ! ழமலநஈதடதடி ! தெஅடிலவாஈ ஆமஈழுடஈ ! மஈஓதநாஈ ! ழாஓஈஓஈஏாஈாஊ.
3.: ! ளசஈப ! –
ணபஈபஈடிசஈபவஈணஈ ! ப லா ணலபுடஈ ! லெப ! டஓஈஓடஈ ! ர்ஓடளர்பதவ ! ரதபாஈா ஆமஈமஈ ! ரஈவபஈபுடஈ ! ! ! ! ! ! ! ! ! ! !
! ! மஈஓதநாஈ ! ழாஓஈஓஈஏாஈாஊ. !
4.: ! லெகு 'ணஈபவஈணஈ ! தடடிடலபஈடீவஈவ ! லெபஈபஏமஈழுபஈபதவாஈ ! ர்ஊகழு ! ழப லா ஈஆ ! ரிழுடஈ ! மஈஓதநாஈ ! !
! ! ழாஓஈஓஈஏாஈாஊ. !
5.: ! ளசஈப ! – ணபஈபஈடிகஈ ! ழமலஅஈஆ ! கரஈநு ! – ணபஈபஈடிசஈபவஈ ! ரதஎ ! – ஈடிசஈபவஈணஈ ! ஙுஓாஅஈஆவஈவ ! ! !
ணபப

! ! தெடாஈர் ! டஓஈஓடஈ ! ரஉர ! டலஓஈஓசஈபதவ ! லாஈாஅஈஆ ! லெஓஈடீடஈ ! மஈஓதநாஈ ! ழாஓஈஓஈஏாஈாஊ. !
6.: ! மீடீ ஈ ! – ணபஈபஈடிசஈபதவ ! டுதடடிலப ! னவஈரலசஈபஈபஈ ! ழபலவஈரமநலணஈ ! ழாலஅஈஉமஈ ! ழமஊருபவுபஈபுமஈ ! !

! ! மடிளைளபுடா ! மஜெதந ! தெஅகமஏாா ளு: ! !

Sub code : 17AT1

Title of the paper : *ஞ ஓஜ்ஜொண ஞர ஜடிணா!*

<u>*ப ஓஜ்ஜொணா! ழ ர வர்ரா ஞ ஆ !*</u>

2. ! ஞ ஓஜ்ஓண ஞர ஜந ! டு பபஜடிமழ ர மழ தந ! ஞெர ன: !

3. ! ஞ ஓஜ்ஓண ஞ ! ாடி ஜபவஜந ! ர ஏ த படிஜந ஞணா ! க ஞஅஉ ணா ! றுஓா ஆ பஜநஓ ! ழா ஞ ஏ வ ஞம ஞ ! கூ தண ! ன ஞக ழ
! !

! ! ழ ப ஞவர ன: !

4. ! ஞ ஓஜ்ஓண ஞ ! ர ஞடி ஜண ஞப ! ாணமளாாஅஅ ! ட பபவஜந ! ா ா ஞ ஆ ப த வ ! ஞெஜக ழ ! ழ ப ஞவர ன: !

5. ! ஞ ஓஜ்ஓண ஞ ! ரு ணட ! ழா ஏ புட ! ர ஜளா ! ளகதமபவ ! ாஓஓ ! ழம ஞக ழ ! ழ ப ஞவர ன: !

6. ! ஞ ஓஜ்ஓண ஞ ! த ட டி ச பவ ! ாஓஓடி ! ர ர ஏ சபதவ ! ஞெஜக ழ ! ழ ப ஞவர ன: ! !

Subject Code : 17NMT1

Title of the paper *! ! ாடிநா ஞஅஜமா! மீடி ா*

<u>*ப ஓஜ்ஜொணா! ழ ர வர்ரா ஞ ஆ !*</u>

2. ! மீடி ா ! ழள ஞஓபதவ ! பெ ! ர ஜ தளாா உ ! றி ழ ட ! மஓ ந ! ழா ஓ ர ன: !

3. ! மட தி ! ட ளா ! ா தி டிநஓ ! றிமா ! ா புர ன: !

4. ! மீடி ா ந ! ழுர ஜளா ! ழள ஞஓப த வ ப ! ப அஓ ர ன: !

5. ! ழம ஞஅ ளபவஜந ! ர த பபதவ ! ஞெஜக ழ ! ழ ப ஞவர ன: !

6. ! ழா ஞஅஉ ம ! ழுமளர ஓ பும ! மடி ஞஎ ஞபுட ! ாடிஓ ! ழா ஓ ர ன: !

Subject Code : 174TA1

Title of the paper *! ! ள ஓா ம ! மீடி ா ! . !* **I**

!

<u>*ப ஓஜ்ஜொணா! ழ ர வர்ரா ஞ ஆ !*</u>

2. ! பர தமபவஜந ! ர ! ளரு பட ! ட ஓ ஓட ! ஞெளடிண ! கஅா பதவா ! ர ஜக ழ ! ழ ப ஞவர ன: !

3. ! பதம ! ட ஞக ம ளபவஜந ! ட நா ழா ஞ ப பஜ த நடீட ! ள பபண பதவடீட ! ஞெஜக ழ ! ழ ப ஞவர ன: !

4. ! றிமம ந ! ர த ப த ட டி த நா ! ர ஜக ழ ! ழ ப ஆ ! ா தி டிநஓ ! றிமா ! ா பபட ! ழ ப ஞவர ன:

5. ! றிமம ஞவ ளபவஜந ! ா த அா பதவ ! ர ட ளநட ! ழளடிடீட ! மஓ ந ! ழா ஓ ர ன: !

! ! ா தி டிநஓ ப ! ப உ மட ! றி ழ ட ! ாடிஓ ! ழா ஓ ர ன:

Sub code : 174TB1

Title of the paper : *ஞெ உ ாா த அ ம மீடி ா ! . ! 2 !*

!

<u>*ப ஓஜ்ஜொணா! ழ ர வர்ரா ஞ ஆ !*</u>

2. ! மீடி ா ழ ரி ஜடிந ! றிமழ பபதவ ! கநபு ! ஞெர ன: !

3. ! மட தி ! கநபு ! ா தி டிஓா ! ழா ளருட ! றிமருட ! பஓஓப ! ழ ப ஞவர ன: !

4. ! றிமம ந ! ர த பபதவ ! கநபு ! ன ஞர ன: !

5. ! பு ஓண ! ழக உ ண ! றிமழ பதவா ! ாஓஓ ! ழம ஞக ழ ! ழ ப ஞவர ன !

6.! ேசபணள! ழளைஓபவுபபு ! கபஎைந !மிட ளை! ழளைஓபதவ ! ஔெகழு ! ழபைவர ண.!
!

Subject Code : 171T2

Title of the paper *! ! ாபஹமு ! –ணபஙபஙடிடுடஈ! கஅப டுடஈ*

ப ஒஹஹணஈ! ழ ர வஙிாஈஈ ஆஈ!

2.! தளர !தர ர ! –
ணபஙபஙடி சஙபவ ! ன ஊமுடஈ! ளடடி ! ! டள்பதவடீடஈ! டு டி ர ஊபவஙநஈ! ாபஹமு ! !
! ! ழகஒஙபதவடீடஈ! ன ஊகமு ! ழப வஈர ஊ.!
3.! மீடி ஙணஈ! ாபஹமு ! – ! ழப வஈர ஊ.!
ணபஙபஙடி சஙபவ ! ழா ஓடஙடஈ! புஓஙமஈமு ! ெ ஒஙகமு

4.! க அப ! –ணபஙபஙடிமஙமஙதநபஈ! ப ஓஈமநஈ! ரூணடஈ! க உாஈர்மஈ! மஙஒதநாஈ! ழா ஓர ஊ.!
5.! ழாடி ஊஈ! ழள ணஙணஙநஈ! ரதபபதவ ! ெ ஒஙர ஊ!
6.! ெ உடி ஊபவஙநஈ! ளரூப ! ரி ஈரஙடிணஈ! ழகஒஙபதவ ! ெ ஒஙகஈமு ! ழப வஈர ஊ.!
!

Subject Code : 17T21 *!*

Title of the paper : *ளடடி ! –ணபஙபஙடிடஈ!*
!

ப ஒஹஹணஈ! ழ ர வஙிாஈஈ ஆ !

2.! ளடடி ! –
ணபஙபஙடி சஙபவ ! ழமநஒஙடிமஓஙபநு ! பள சஙபதவடீடஈ! தளர ! ளடடிமஈ! ழமஒஙஒமமநஈ! !
! ! ரவ ஊஊதடிடீடஈ! தளர ! ளடடிபஙபுளர ஊபதவாஈ! ாஒஙடீடஈ! ழம ஊகஈமு ! ழப வஈர ஊ.!
3.! தர ர ! ளடடிமஙநஈ! ழமஒஙஒடஈ! டஒஓடஈ! ோ ஈர ஊபவஙநஈ! ஊஒாஈஙடிணஈபவஈ! புஓஙமஈமு ! ெ ஒஙகமு !
!
! ! ழப வஈர ஊ.!
4.! ாணழுர ஓ ! ளடடி ! –ணபஙபஙடி சஙபவுபபு ! –
தஅழுடி ! ! கஙணருடஈ! ! பஏமமு ! லஒஓதடபதவ ! ெ ஒஙர ஊ.!
5.! மநஙாஈஅணபவஙணஈ! னவவ ! ர்ணர ஊபவஙநஈ! ர்ணதடமஈ! மநஈதடபதவமஈ! ழம ஊகஈமு ! ! ! ழப வஈர ஊ.!
6.! பஙஒமமர ! ! – ஒணடஙடி ! ளடடி சஙபவஙநஈ! ழமஒஙஒடஈ! ரவ ஊஊ! டஒஓடஈ! ெர ஒஙஒநஈ! ! ! !
7.! ஊஒாஈஙடிணஈபதவமஈ! ! ழம ஊகஈமு ! ழப வஈர ஊ.!

Subject Code : 17T22

Title of the paper *! மீடி ப ! ர ஊணஒடஈ! ா ஈஆடஈ!*

ப ஒஹஹணஈ! ழ ர வஙிாஈஈ ஆ !

2.! மீடி ப ! ர ஊணஒஙஒநஈ! ளநஈஒம ளசஙபதவ ! ெ ஒஙர ஊ.!
3.! ளசஙப ! பண ! டபஙபவஙநஈ! ரி ஈரஙடிணஈ! டுதஒபதவமஈ! ழம ஊகஈமு ! ழப வஈர ஊ.!
4.! ரூ ழர கஙமஊபவஈ! டஒஓடஈ! புஓகண ! டநஈநஊபவஙநஈ! ே அஊ! மஙஒதநாஈ! ர்ஊகஈமு ! ழப வஈர ஊ.!
5.! டநஈநஊபவஙநஈ! பதணமஈ! மஙஒநபதவாஈ! ர்ஊகஈமு ! ழப வஈர ஊ.!
! ! ரஙஆமதணாஈ! ழா ளஅஅ ! ரஊஊபவஙநஈ! மஙடி பசஙபதவ ! ெ ஒஙகஈமு ! ழப வஈர ஊ.!

Subject Code : 17AT2

Title of the paper *! –*
மி ஙடிணஈ

ப ஒஹஹணஈ! ழ ர வஙிாஈஈ ஆ ! !

2.! ழம அபஙப ! பண ! –கமடி ! –மி ஙபதவ ! ெ ஒஙர ஊ.!

3.: ! –மி ⁑பவந ! –நஓடிதடடி ைதட தடி ! ழமஙகமு ! ழப ைவரஙீ !

4.: ! –மி ⁑பவந ! னஙதடள ! ளஅஅசபதவ ! ெஓகமு ! ழப ைவரள !

5.: ! ாண ! ர தபடி ைந ! ழளடிமப தவ ! ஜமுட ! ாடிஓளு ! ழா ஓர ஙீ !

6.: ! ா ா ைஅஆ ! ர வஙளஙடிதந ! ெஓகமு ! ழப ைவரஙீ !

Subject Code : 17NMT2
Title of the paper :

Subject Code : 174TA2
Title of the paper

Subject Code : 174TB2
Title of the paper

Subject Code : 171T3
Title of the paper

6.: ! பளாீாஙடிபீ ! பணை ! ரஎண ஜைீஔஙதந ! ௌஔஙர ஊ: !

Subject Code : 17T31

Title of the paper : *!ளஓஜூணபஙபடிடன!*

பஓஜூணா! ழர வஙாா ஆ !

2.! ளஓஓணபபடிட! ழமநஓடி !பணளஜி தண !ன ளகழ !ரெஓஓந!ாஆழாஏதவ !ஔர ன!

3.!ளஓஓணபபடிசபவந!ரதபபதவடட!பஅதடாாதநடட! ன ளர ன!

4.!பண !ழ ரஓாஅஉஓழபஓா !டபபவந!ா ாஆ!ாா பப!ாா பபசபவ!டள்!கதண !டஓஓட!!

! !டுமணநர ஓதஓா!ாபுமழ ளகழ !ழமவர ன!

5.!ளஓஓணபபடிசபவண!ப ாாஆட!பெட!டஓட!ர்ஓமழதஓப!ழஓபதவள!ளசப!!

6.! –ணபபடிசபழவஆ ! லாாஅஆ !ஔஓடட!மஓந!ழாஓர ன!

7.!ழளடிடதவ !கநபு !ரளமழ!ழமவகழ !மெதநா!ாதஅாாணப ழர வாா ஆமழட!மஓதநா! ! ண!

8.!ழாஓர ன!

Subject Code : 17T32

Title of the paper : *–ணபப ட! .! கநநு 'ண! .!றிமமமபளட!*

பஓஜூணா! ழர வஙாா ஆ !

2.றிமமணபப மமந!டுபபடிமழரமதம !ட ர பவ!ஔர ன!

3.றிமழபபவந!ரதபபவ!ாஓஓட!!ாடிநாஆபவ!ாஓஓட!ழமகழ !ழபவர ன!

4.றிமழபபவந!ாஓார்!ாஓார் !டுதஓபவ!ர் ளளா!டஓஓசபவ!னளளாார் !ாஓஓ!ஔகழ !

ழபவர ன!

5. சபதவ !னவர சபடி !

மஓபண !கதஅடுதஓடிண!ழ டிடிண!றுஓாஅஉஏபபநஓ !டஓஓ

கதணடிண!றிமமணபப !ரளாாந!ருணட!ர்மடி !ஜெபுடுதஓபதவப!ப அஓஓட!மஓதநா !

ழாஓஓஏாா ன!

6. –

ணபப மமந!ரடிணப !மடதி ா!ாதி டிநஓ!றிம !ாடிஓள!ழாஓஓ !ளாமழதஓடிணட!!

னுஅபமழதஓடினுட! ழரதண !ரடிாாதநா!ழாஓட!மஓதநா!ழாஓஓஏாா ன!

Subject Code : 17AT3

Title of the paper : *– கமடி ! –ணபபடிட!*

பஓஜூணா! ழர வஙாா ஆ ! !

2.! –கமடி !வெரணந !கரந–ணபபடிா!ாமபவண!ழமநாஆபஓ !ழமநதடள! ! !ளஓார்பவ! !

! !டுமணந !டெளசபதவா!ாபுமழா!ாமழ!ரெஓஓண!ழமநாஆபஓ !ரி ரடிண!ழஓபதவ ! !

! !ழரஓாஆமம!ஔபஓ !மஓநபதவா!ழாஓஓஏாா ன

3.! –கமடி !வெரணந !கரந ! – !ொாதஅார்பவண! ! ! ! !

ணபபடி !ழடதமபதவம!ழமரு !ழளடிழ

! !னவவ !மநமமநதடபதவப!ப அஓஓட!மஓநபதவா!ழாஓஓஏாா ன!

4.!ாநடுபாாஅ !பரதம !டஓட!பதம!!கரண!–ணபபடி !ரஉர சபதவ !தெஅடிவச! !

! !ப உஏாா ன!

5.!ழா டிட!டஓட!ளரு ப !ரஆமதண !புஓமம !ளகமதநபதவ !உாாதஅடிபப!ழப அ! !

! !ாதஅார்பதவ !ாஓ !ாதஅார்பவண!–ஏகழ !ழரஓாஆமம!ஔஓட!மஓதநா!ழாஓஓஏாா ன!

6.! மஓபணைமிழிம்கம ! கரஜநபழப ஊைஅ ஆப த வா! ழா ஏை மமா ணைபபுட! மஒத நா! ழா ஓஓஏா ண.!

Subject Code : 17SET31
Title of the paper: ! ழாளஷுபஙுதண !

ப ஓஜூணை!! மூர வஙாஙூ ஆ ! !

2. ! ழாளஷு ! க லபளஷமஷுதந ! டுஒஷகுழ ! ழப லவாரஷ !
3. ! ழட தஅா ! ழாளஷுந ! மஓந ! டுஒரஷ !
4. ! தெர ! கலபளஷமதம ! ர்ஷகுழ ! ழபலவாரஷ !
5. ! கதபளஷ தர டிஙந ! கநதடடிஷதந ! நொர ாஷ !
6. ! ழாளஷண ! மநநடாபதபதடி ! ரவஷமழப ! ழபலவாரஷ !
!

Subject Code : 171T4
Title of the paper ! ! ளசஷ ! – ணபஷடிடுடஷ! னதஎகத அடைடஷ

ப ஓஜூணை!! மூர வஙாஙூ ஆ !
!

2. ! ளசபபலண ! டபவஷந ! ரா ரடிண ! ரடடி சபதவம ! ழமஷகுழ ! ழபலவாரஷ !
3. ! ர்ஓாா அணபவந ! ரா ! பெபலண ! டநநளபவந ! ழபலத அ ாத அ ே அளு ! ளஓாஷதந ! டுஒரஎ !
4. ! பெ – ணபபடி ! டலகமளபவந ! னவாா சபதந ! டுஒடைட ! மஓந ! ழாஓரஷ !
5. ! பெமமத ர் ஓமமத ா ! ாபுாஆபதவ ! லாாஅஆ ! டுஒரஷ !
6. ! னதஎகதஅடிந ! ரூணட ! னதஎடி ளஷடிளபவந ! னதஎ ! ரவமமதந ! ழமஷகுழ ! ழபலவாரஷ !

Subject Code : 17T41
Title of the paper ! ! பலாாடி ! – ! ! !
ணபஷபடிடஷ!

ப ஓஜூணை!! மூர வஙாஙூ ஆ !

2. ! பலாாடி ! – ணபபடிமமந ! பஅஅதடாாதந ! டுஒரஷ ! !
3. ! ழாவமமப ! பலாாடிமமந ! ரா ! ர்மம ! ளடடிப ! பஏமமதந ! னா ஷரஷ !
4. ! ஷரப ! ஷகமலட டிந ! – ணபபடி ! கதஅடிதநா ! ர்ஷகுழ ! ழபலவாரஷ !
5. ! கடிநட ளபவ ! டுபம ! ழாஓஒ ! ரஎணலஓஓதந ! டுஒரஷ !
6. ! பஒமமர ! – ஞணலடடி ! ளடடி ! ழபலஅா அஉ தநம ! ழமஷகுழ ! ழபலவாரஷ !
!

Subject Code : 17T42 !
Title of the paper : கநஷு ‘ணஷ!! . ! ழளலணணமபலளடஷ!

ப ஓஜூணை!! மூர வஙாஙூ ஆ !

2. ! ழளணணணபப ! டஎர்பவந ! கதணாா அஉ தந ! கநஙு ‘ணலஷ ! ரா ! டுஒகுழ ! ழபலவாரஷ
3. ! மீட ஷழளலஒபதவா ! ஙூ டிநஒ ! னளஷாாமஓபுட ! நிழர மஓபுட ந ! ாடிஓஷடிதநாழாஓரஷ !
4. ! ழளலஒபவந ! ரதபபவ ! டஓஒட ! ாபுாஆ ! ழாநஒதர ! ாஓஓ ! ழமஷகுழ ! ழபலவாரஷ !
5. ! – ணபபடி ! – டஷ ! ழரஓா ஆபநஒ ! கதணடிதந !
ணபப சபவண ! ழளணணமபலளட ! லநஓா ஆட ! டஓஒ !
! ! னா ஷகுழ ! ழபலவாரஷ !

6.! மிடா ஙணை! ழள ஸைணைணஙநை! ாடிநாை ஸஅை உ தந !டு தட டி ஸப ! ஹெங கைமு ! ழப ஸைவைர ணை.!
!

Subject Code : 17AT4

Title of the paper : *! ழ ம ஊண்ணாடிணா!!*

பஓண்ணா!! ழர வணாா ஆ !

2. ா சபணளா! ள டு மடிட! ரஅத்ஆளா! ழள நஒ ! க ா டி சபவ; டஅா அசபவ!
! டேமசபவ;

ழா நஒர ஓஒநா! ர டிணப ! பெபணை ! ரண ஓம! ழமநதட டி தந ! ன ா ர ண.!
3. ா ழப பபநஒ ! ா தநா!
ா ஆ ! ட ஓட! க பமதமடீட! ன ா கழ !ா டழாஏஅபதவா !
!
ழாஓர ண.!

4. மீட ! ழடீ டிநா! பகடீ; ! ! ாடீ, ! ர அழிஅழ ! ! ழா நஒ !நிமழபபவநா! ரவளா!
கதண டிதந ! ஒர ண.!
5. பணழர அஆபதவா! ா உழடி ஆழ ! ர ளபபநஒ ! மஓதநா! ழாஓர ண! !
6. டு ஓபணை ! ளெ பவநா! ளெடிண; ! ர ா ாட;
! ழாஏவமள ! கஅர உபதபபதவா! ா கழ ! ழபவர ண.!

Subject Code : 17SET41

Title of the paper : *! மதளாஅப!! பதணடீட!! ரடணாநடுட*

பஓண்ணா!! ழர வணாா ஆ !

2. ! மீட ! மதளாஅ ! – டிபபுகளபவநா! ா தஅாபதவா! கழ ! ழபவர ண.!
3 ! மதளபதம! ரளநட! லவாமரநா! குஅாமமதந ! ஒடீட! ஷேஓணா! ழாஓர ண.!
4. ! மதளாஅமமநா! பணைர வளாடிநா! ழா பபதந ! ஒர ண.!
5. ! மதளாஅமமதந ! ரடளநட! ழளடிடீட! மஒநா! ழாஓஓ ண.!
ஏாா
6. ! புஓடாஅசபவநா! குஅாசபதவம! ழமகழ ! ழபவர ண.!

Subject Code : 17T51

Title of the paper : *ாமழந ா ப ா பபு !*

!

பஓண்ணா!! ழர வணாா ஆ !

2. ! ஒகு 'ணா! ரீடடி சபவணை! ரி பதபமமளட! ன டிர தம ! ஒகழழபவர ண.!
3. ! ா தஅபணமா! மீட நா! பெ ! ரி பதப ! டெளசபதவ ! ஒகழழபவவுட! மஓதநாழாஓர ண.!
4. ! பணை உாாதஅடிணா! ஒ ! கு 'ணபதவ ! லாாஆட! மஓதநாழாஓர ண!
5. ! ாமழந ரி பா பபு ! கு 'ணபதவ ! டமாஆ ! ழளடிர ண.!
6. ! ஒழகஓபதவ ! ரி பதபடிணா! ாநாஓடை! டநாா சபத ழாஓர ண.!
நா!

Subject Code : 17T52

Title of the paper : *! – ணபா டா!! . ! பொாழா ஏவா! ஓாழா ஏவா!!*

!

பஓண்ணா!! ழர வணாா ஆா!

2.:
ளசப ! பணை ! டபபவநு! டுமணபஏ ?ன ணாழா ளஏவபதவ ! ஔர ண.: !
3.:
பெபணை ! டபபவநு! பெ ! ரி பதபதடிம! ழம ணகமு ! ழப ளவர ஜ.: !
4.: ளசப ! பணை ! டபபவநு!ர்ஓ ! ரி பதபதடி ! ஔர ண.: !
5.: !ர்ஓாழா ளஏவ! ழர ா ளட ளதண ! ஞஅஆட! ழூா ளஜடு தஓபதவம! ழம ள ழப ளவர ஜ !
நகமு

6.:மதூ ?மு த ஓ ! ெ உாா தஅடிணை!ர்ஓ ! –ணபபடிசபதவா!ர்ணகமு ! ழப ளவர ண !

Sub code : **17TE5A**
Title of the paper : *ழா⁻⁻ாடிட!*

ப ஒ௺றணை!! ழர வஷாா ழ ஆ !

2.! ழா⁻⁻டிட!றநோ ! ழளணணமநு! பஏமமபமமதந ! ஒஷர ண.
3.! ளருபள!கூ ணணை! ழா⁻பவ! டமபபாா ஆபநூ ! கதணாா அஉ தந ! ன⁻ ஷர ண.
4.! ா⁻ா ஆ ! னவரடிண! டஓஓட! வேதட ! ெஉாாதஅடிண! ழா⁻⁻ புஓமழ ! வேஎடிபநூ ! ! டிட!
! ! மஓதநா! ழாஓர ண.

5.! கஅாா்ளகூ ணணை! ழா⁻பவுபபு ! –தி பபாாஆபநூ ! ரநடுதஓ, ! ல ஆபபுடுதஓ ! ாஓஓடி ! !
! ! ஒஷரதநடீட! பெழபஆதடபவணஏகழ ! டஷரமஓபந ! ழமவரதநடீட! ழாஓர ண.
6.! ழா⁻! ெஉதடமமநமமணஏகழ ! டூ⁻ஆ !ரி ாா⁻ரு ! ழாஓபநூ ! கதணடிதந ! றடிழர ண. !

Subject Code : **17TE5B**
Title of the paper : *! கஅஆாா் ஓரடிண!!*
!

ப ஒ௺றணை!! ழர வஷாா ழ ஆ!!

2.! கஅஆாா் ஓரடிண! றநுட! வேடிருமழதஓடிந! ெஉாாதஅபதவம! ! ! ! ! ழமணகழழபவர ண
2. *கஅஆாா் ஓப! பதமாா அணபவ! ன⁻ ணமழட! ன⁻தட ! கதணபதவ ! ஒஷர ண. !*
4.! கஅஆா! ர் ஓப! பதணபதவ ! டஓஓட! டபபவந! கடாபதபபதவ ! ன⁻ ஷர ண. !
5.! கஅஆாா் ஓ ! டஏமழரட! டஓஓட! ரதவடி அஆபவ! ாஓஓ! ஒஷகழ ! ழபவர ண. !
6.! ட⁻ளஓகம ! டபபவந!ரி பதப ! டுதஓதடி பதணர உரசபதவ ! ஒஷகழ ! ழபவர ண. !
7.! கஅஆாா் ஓ !ரி பபஓபவந!ரி ளருப ! ா⁻ா அஆ ! தெளருபதவ ! ஒஷர ண. !

Subject Code : **17TE5C**
Title of the paper : *! மபர ணை!! ழம அஎாடிண!!*

ப ஒ௺றணை!! ழர வஷாா ழ ஆ!!

2.! மபர ண! ழம அஎர் ! ரவளளா! கதணபதவ ! ஒஷர ண. !
3.! ரவடாஎ ! ழகஓடுதஓபதவம! ழமணகழ ! ழபவர ஓ. !
4.! மபர ண! ழளடிணடுதஓதடிா! ாஓஓ! ஒஷகழ ! ழபவர ண. !
5.! ளௌ ! னுஅபசபவ! ாஓஓ ! ழமணகழ ! ழபவர ஓ. !
6.! ரஏழந ணம ழமதணபப அஎாடிந! லணலவ! ாளாாந! ழளதரதடிா! ாஓஓ! ஒஷகழ ! ழபவர ண. !

Subject Code : **17SET51**
Title of the paper : *! ! பரநபதணபவ!!*

ப ஒ௺றணை!! ழர வஷாா ழ ஆ !

2.! பஅஉஅபபதணடிந! குஅாசபதவா! ர்ளகழ ! ழபவர ண. !
3.! ளஓாபபதணடிந! ருணட! ளஓாமமந! டதஓழாஏதவ ! ஒஷர ண. !
4.! –தளப! பஏரபதவடீட! மெந! டள்பதவடீட! ர்ளகழ ! ழபவவுட! மஓதநா! ழாஓர ண. !

5.:! கஅைஉடிபபதணடிதநடீட! மெஓபு !ர சபுட!ாஅட!ாஓஓ ஒெர ளீ:!
டீட!

6.:! மூமழுப!பதணடிநீ!ா தடடிதநா!ர்ஙகழு ! ழபவைர ளீ:!

Subject Code : 17SET52

Title of the paper : ப**ா**ந**ம**மிடை **!**

ப ஒஜ்ஜணர**!** ழ ர வமாணா ல ஆ **!**

2. **!** – **!** ழ ப லவஈர ண. **!**
ணபஈபஙடிட**!** ாடிஞுட**!** ட ரைஈபவ**!** ப**ா**ஙநதடிா**!** ா ஒஒ**!** ெஒஙழ

3. **!** ப**ா**ஙநதடிா**!** ாடிநா ஆமழடீ**!** ரமடீ**!** பு ஓமழ **!** ாடிஙஒளு**!** ழா ஒஒஏாா ண. **!**
4. **!** ப**ா**ஙநடிஙணு**!** மிடை **!** –
ணபஈபஙடி **!** கு ணஈபதவாா**!** ாமரஙஒபஈபட**!** ழளடிழ **!** ாடிந**!** ழாஓட**!** டு த ஒ **!** பு ஓமழ **! !**
! ! ெஒஙர ண. **!**
5. **!** ப**ா**ஙநதடிப**!** தபடி லவுட**!** டு த ஒபதவடீட**!** புஓமழட**!** – பஙதஅபபுட**! !**
த**ா** டிமமணு**!**

! ! மபரணபதவடீட**!** கட ழ **!** பணரங**!** டு த ஒபவு பபு **!** ஜஒா **!** ெர ஒத ஒா**!** ாடிநா ஆமழடீ**!** ரமசபதவடீட **! !**
! ! ழமணஙழ **!** ழ ப லவஈர ண. **!**
6. **!** ப**ா**ஙநடிஙண**!** ாடிநா ஆமழடீ**!** ப த ணளழள லஓபதவா**!** ா ஒஒ**!** ெஒஙர ண.

Subject Code : 17T61

Title of the paper **! !** ாமழந**ா**ஜுட ஒஈப**ா** பஙபு **!**

! ட ஒஜ்ஜணர**!** ழ ர வமாணா ல ஆ **!**

2. **!** ள சபாாலஅண**!** மு ஒஓ பவஙந**!** ரூணட**!** ட லகமளபவஙந**!** ட ந கஙத ண டிஙத ந **!** ெஒஙர ள. **!**
3. **!** பணமழம த பா**!** ா லஅணஙந**!** ரி ங**!** ஜஓமிருமணஙந**!** ளஙஓாஙத நம**!** ழமளஙழ **!** ழ ப லவஈர ள. **!**
4. **!** ாமஙஒஓாாமமஙந**!** ரூணட**!** ழள எட நந ளபவஙந**!** ர ண லஒஒத ர்ணஙழ **!** ழ ப லவஈர ள. **!**
நா**!**

5. **!** ள சப **!** – ணபஈபஙடி **!** ப அஆ த எபவஙந**!** ரி ங**!** ர்ணர ளபவஙந**!** ா லஅஆமமஙஒ த ந **!** ெஒஙர ள. **!**
6. **!** ள சபாார்ணர ளபவஙந**!** ரி ரஙடி த ணம**!** ழமளஙழ **!** ழ ப லவஈர ள. **!**

Subject Code : 17T62

Title of the paper : – ணபஙப**ா** ட**!** டி லாா **! . !** ெ**ா** ங**!**

ப ஒஜ்ஜணர**!** ழ ர வமாணா ல ஆ **!**

2. ஜிமழ **!** தெளபதவ **!** ன வஈர லசபஙப**!** ழ ப லவஈர ழம ல ஆ **!** டு த ஒ டி லப **!** ர ளஙபபருட**!** ாடிஙஒளு **! !**
! ழா ஒஒஏாா ண. **!**
3. ஸஜு**!** ம த வ **!** ெ உ ப த வ **!** தெஅடி லவ ச**!** ப**ா** ஆ **!** ழ ப லவவுட**!** மஙஒ த நா**!** ழா ஒஒஏாா ண. **!**
4. ா ல**!** ா ர த பப த வ **!** லாாஅஆ **!** மெந**!** மநதட ப த வ **!** ரஙர லமஙபபுட**!** மஙஒ த ந **!** தெஅர ண. **!**
5.
ெ**ா** ஙடிஙணபப**ா** ட**!** ர்மஙடி **!** ர உ ர ட**!** ழா ஒஓ **!** ர வ ணளளடி த அகம **!** மநதட த டிள**!** ள லநஙஒபவுஅந**!** ெஒஙடீட**!**
மஙஒந த அர ண. **!**
6. ாணழர ஓ **!** ெ**ா** ஙவுபபஙதஅழடி **!** ன வஙவ **!** ழா லழ த ட பவ**!** ழர ஓா ல ஆபவ**!**
பேஙடிநர ஒத ஓம**!**
ழம லபுமழ **!** ட மாாஆ **!** ழளடிஙடீட**!** ாடிஙஒளு**!** ழா ஒஒஏாா ண. **! ! !**
!

Subject Code : 17TE6A

Title of the paper **! !** ன த எடி லளஙடி ணபவுட**!** ன த எக த அடீட

ப ஜெஜைண!! ழ ர வாா ை ஆ !

2. னதஎகதஅ ! –ணபபடிமமநா ! ழுமலைஓடா ! டஓடா ! ரவளளடிதந ! லெரஎ !
3. –ணபபா ! னதஎடி ளைஎடிஎபவநா ! னதஎரவமமதநமா ! ழமஎகமு ! ழபலைவரஎ !
4. னதஎரவமமநா ! ருணடா ! –ணபபடிசபவநா ! னவவளைகம ! ழா ைஏதவ ! னா ஏரஎ !
5. பளாாடி ! –மபளைசபவநா ! னதஎளா ! எஓாாதந ! லெகமு ! ழபலைவரஎ !
6. ளடடி ! கு ‘ணபவநா ! ரஎண ைஓஓதநமா ! ழமஎகமு ! ழபலைவரஎ !

Sub code : 17TE6B

Title of the paper : *—ணபபபடிமா! மஒந லடிரு !*

ப ஒிறணா! ழ ர வடாிலர் !

1. *மஒந லடிர வெ ண ! மபுமபவ ! ,மஒந லடிரு ! ர தபபவ ! ாஓஓ ! ழம ணகழ ! ழப லவர ண.*

2. *—ணபபடி ! ரவபபட ! டஓஓட ! — ! ஒெர ண. ணபபடி ! ா லபுா லதபவ ! ாஓஓ ! கநபு*

3. *பரதமடிந ! மு ஓபவ ; ! ர தபபவ, ! க லஅபாாலஅபவ ! புஓமழ ! ஒெகழ ! ழப லவர ண.*

4. *ளஓபதமடிந ! தெடாாட ; ! ளஓபதமபபு டி ! புஓபழப லதவடட ! ன ணகழ ! ழப லவர ண.*

5. *க லஅபமமஓபுட ! ரமநமமஓபுட ! — தஅழடி ! னவவ ! ழர ஓா லஆ ! க லஅபமமந ! பதமபழப லாா, ரமுபபரதமடிந ! ழா லபபுபவ ! ாஓஓ ! கநபு ! ஒெகழ ! ழப லவர ண.*

Subject Code : 17T63

Title of the paper :
ழட லி டிடிண!

ப ஒிறணா! ழ ர வடாிலர் !

2. ! ழட லி டிந ! ழம லநதட ! டஓஓட ! ர வதட தடி ! ஒெடட ! மஒதநா ! ழா ஓர ண. !

3. ! ழள லஒபவந ! ா லபுா லஆபதவ ! ஒெடட ! ஓேஓண ! ழாஓர ல. !

4. ! ழட லி டிந ! ர உரட ! ர வணளதடி ! ஒெகழ ! ழப லவர ழம ல ஆ ! ாஓ ! ழட லி பவுஅந ! னவவ ! ! ! ! ழம லஅதாம ! ழம ணகழ ! ழப லவர ண. !

5. ! லணபபுட ! லணடி நுபபுட லந ! ழர ஓா லஅஉதந ! ஒெர ண. !

6. ! ழட லி ழாடிணாந ! குஅாசபதவா ! ரணகழ ழப ல ஆ ! மெநரி ! ா ர லடிாாத நா ! ழா ஓர ண. !

Subject Code : 17SET61

Title of the paper : *ா ர லடிாாமலடி !*
!

ப ஒிறணா! ழ ர வடாிலர் ! !

2. ! ளசப ! பண ! —ணபபடி சபவ ! ழம லஅசப ! கரந ! —ணபபடி சபவ ! ர தளடிணுட ! னவவ ! — ணபபடி ! !
! ட லஒஒசபதவடட ! ர வணள ! கதணபதவடட ! ஒெர ண. !

3. பவுபபதஅழடி டி லந ! ! ! ! ாதஅாா லவபவந ! ாணழர ஓ ! ாதஅாாம ! மஒநபதவடட ! ாதஅா ! ழர ஓா லஆபதவடட ! ஒெடட ! மஒதநா ! ழா ஓஓஏாாண. !

4. ! ளொ ! டஓஓட ! னுஅபசபவண ! ா டிலஓஓட ! மஒதநடட ! ாதஅாா லவளபம ! மநதந ! ! ! ழடடா ஆமழட ! மஒதநடட ! ஒெகமஏாா ண. !

5. ! பதணமழத ஓபவண ! ா டிலஓஓரமஓப லந ! ழடடா லஆபதவ ! தெஅகமஏாா ண. !

6. ! ழா லஅஉம ! ழம ணருபவண ! ாசழப ஓாமஓப லநம ! மபுமபதவ ! ர வணமழப ! ழப லவர ண. !

Sub code : 17SET62

Title of the paper : *ாதஅாணபபடிடா!*
!

பஓணா!! ழர வாலஆ !

2. பளாதமடடா!ாஓஓ!
மசபவா!றா மதம ! ழர வடிஆடா! ளேரமதமடடா!மெஓபநே !ர உர
டா!
ஒஓகமு ! ழப லவார ண!

3. டளர்பபரதம ! ன ஏர லபபட; !ர்முபபரதம ! – டிபபடா!ாஓஓ! கநபு ! ஒஓர ண!

4. ளஓபதம ! ன ஏர லபபுடா!மஓதநாா! ழாஓர ண!

5. ா உபபுடா! கஅபசபவா!டஓஓடா! க உபபுடா! கஅபசபவா! – தஅழுடிடிலந ! ழுர ஓாஅஉதந !
ர ஓஓஓர்ணகமு ! ழப லவார ண!

6. லணபுஓார், ! க உார்பபுஓார், !ரளநடா, ! னமமபவா!ாஓஓ! கநபு !ர்ணகமு ! ழப லவார ண! !

DEPARTMENT OF PHYSICS
U.G.

DEPARTMENT OF PHYSICS-UG

Programme Code: P **Programme Name: B.Sc. Physics**

Programme Outcomes

1. Understand the fundamental laws and principles of various areas of Physics.
2. Learn the theoretical knowledge of Physics principles and mathematical tools to solve practical problems.
3. Executing series of experiments or computations and to handle specialized equipments.
4. Understand the role of Physics in society and the background to consider ethical, legal and responsibilities.
5. Ability to pursue Science career, Successfully.

Programme Specific Outcomes

1. Acquire Knowledge and to Understand the academic field of Physics and applications of Basic Physics.
2. Apply Mathematical techniques with emphasis on applications of Physics.
3. Develop knowledge and skills such as a practical approach to solve problems, the ability to reasoning out and to communicate complex ideas.
4. Assist in the creation of an effective project plan.
5. Personal skills such as the ability to work both independently and in a group.

Course Outcomes

Upon completion of the course, the students will be able to

SEMESTER - I

Subject Code: 17P11

Course Name: MECHANICS, PROPERTIES OF MATTER AND SOUND

Upon completion of the course, the students will be able to

1. Study the conservative laws and conservative forces angular momentum and types of collision.
2. Learn the fluid motion, determine the coefficient of viscosity by different methods.
3. Understand simple harmonic motion and the types of sound waves and also the acoustic properties.

Subject Code: 17SEP11
Course Name: BASIC ELECTRONICS

Upon completion of the course, the students will be able to

1. Know the fundamentals of Passive components.
2. Gain the knowledge about the functions and working of Transistors.
3. Learn about the fundamentals of semiconductors.

Subject Code: 17SEP12
Course Name: DIGITAL ELECTRONICS

Upon completion of the course, the students will be able to

1. Understand the fundamentals of code and number system.
2. Able to solve problems in digital electronics using K-map.
3. Develop skill to build and troubleshoot digital circuits.

Subject Code: 17NMP1
Course Name: ENERGY PHYSICS
Upon completion of the course, the students will be able to

1. Obtain qualitative ideas about fundamentals of energy.
2. Get an idea about basic principle of solar energy, wind energy and biomass energy.
3. Know about other non-conventional energy sources like Ocean Thermal Energy Resources, Wind energy and Chemical energy resources.

SEMESTER - II

Subject Code: 17P21
Course Name: HEAT AND THERMODYNAMICS

Upon completion of the course, the students will be able to

1. Understand the specific heat capacity of gas and different theories on specific heat capacity
2. Know the heat transmission through different experiments
3. Learn the postulates of kinetic theory of gases and theorem of equipartition of energy

Subject Code: 17P2P
Course Name: MAJOR PRACTICAL I

Upon completion of the course, the students will be able to

1. Examine the young's modulus of different materials.
2. Calculate gravitational constant at different places.
3. Calibrate voltmeter and ammeter of different ranges.

Subject Code: 17SEP21
Course Name: ELECTRONIC INSTRUMENTATION

Upon completion of the course, the students will be able to

1. Identify the various parameters that are measurable in Electronic Instrumentation.
2. Practice the construction of testing and measuring set up for electronic systems.
3. Analyze the performance of the characteristics of each instrument.

Subject Code: 17SEP22
Course Name: ELECTRICITY

Upon completion of the course, the students will be able to

1. Understand the electrostatics and current electricity.
2. Gain the knowledge of electric current, resistance and capacitance in terms of electric field and electric potential and demonstrate the working of capacitors.
3. Acquainted with the dielectric properties, magnetic properties of materials and the phenomenon of electromagnetic induction.

Subject Code: 17NMP2
Course Name: ASTROPHYSICS

Upon completion of the course, the students will be able to

1. Assess the design of physical nature of path and the surface of the structure of moon.
2. Apply various optical instrument and explore the observation of the universe
3. Learn the age and origin of the solar system and illustrate the differences between earth and other planets in the solar system.

SEMESTER - III

Subject Code: 17P31
Course Name: ELECTRO MAGNETISM

Upon completion of the course, the students will be able to

1. Analyze the magnetic effects of electric current and demonstrate the associated concepts with Ballistic Galvanometer
2. Acquire knowledge of Gauss laws and solve the electric field for various geometric objects.
3. Exhibit the Knowledge in the basic concept of electromagnetic induction.

SEMESTER - IV

Subject Code: 17P41
Course Name: OPTICS

Upon completion of the course, the students will be able to

1. Analyse and understand the theory and experimental part of diffraction by the theory and experiment of interference using Fresnel's biprism, Newton's ring and Michelson's Interferometer.
2. Learn the knowledge on the Fresnel's and Fraunh offer diffraction .
3. Understand the basic concepts of Lasers.

Subject Code: 17P4P
Course Name: MAJOR PRACTICAL II

Upon completion of the course, the students will be able to

1. Analyze the operation and application of various bridges used in d.c and a.c circuit
2. Explore themselves to understand the different bridges and to find the self inductance of the coil.
3. Learn the charge and current sensitivity by using Spot Galvanometer.

SEMESTER - V

Subject Code: 17P51
Course Name: ATOMIC AND NUCLEAR PHYSICS

Upon completion of the course, the students will be able to

1. Familiarize about the atomic structure and various atom models.
2. Gain knowledge about Elementary particle Physics and nuclear models.
3. Study the different types of particle accelerators and detectors.

Subject Code: 17P52
Course Name: PROGRAMMING WITH C++

Upon completion of the course, the students will be able to

1. Obtain the fundamental concept of Object oriented language.
2. Gain the knowledge about Tokens, Expressions and Control Structures and various types of function.
3. Learn the knowledge on the Classes, Objects, Constructors and Destructors.

Subject Code: 17PE5A
Course Name: ELECTRONICS

Upon completion of the course, the students will be able to

1. Illustrate about diodes, transistor and FET amplifiers.
2. Learn the concepts of Op-amp and Oscillators.
3. Understand the digital sequential circuits, counter and converters.

Subject Code: 17PE5B
Course Name: NUMERICAL METHODS

Upon completion of the course, the students will be able to

1. Solve the numerical solutions of algebraic and transcendental equations.
2. Learn about various interpolating and extrapolating methods. Solve initial and boundary value problems in differential equations using numerical methods.
3. Helpful for appearing Mathematical competitive examinations.

Subject Code: 17SEP51
Course Name: FIBRE OPTIC COMMUNICATION

Upon completion of the course, the students will be able to

1. Learn the principle and structure of optical fibres.
2. Apply the fundamental principles of optics and light wave to design optical fibre communication systems.
3. Understand the different Multiplexing system.

SEMESTER - VI

Subject Code: 17P61
Course Name: SOLID STATE PHYSICS

Upon completion of the course, the students will be able to

1. Distinguish the different types of bonding in solids.
2. Understand lattice, Unit cell and how these relate to crystal systems.
3. Analyze the theories of semiconducting material.

Subject Code: 17P62
Course Name: SPECTROSCOPY

Upon completion of the course, the students will be able to

1. Learn the structure of atoms and the origin of the observed spectra.
2. Gain knowledge about the techniques of IR and Raman spectra.
3. Interpret electronic spectra of diatomic molecules.

Subject Code: 17PE6A
Course Name: THEORETICAL PHYSICS

Upon completion of the course, the students will be able to

1. Understand the basic significance of Classical mechanics.
2. Gain the knowledge about Quantum statistics.
3. Analyse the basic functions of wave mechanics and relativity.

Subject Code: 17PE6B
Course Name: COURSE NAME: APPLICATIONS OF ELECTRONIC DEVICES AND INSTRUMENTATION

Upon completion of the course, the students will be able to

1. Illustrate basic meters such as ammeter and voltmeter.
2. Know the different types of recorders.
3. Differentiate IC and discrete components.

Subject Code: 17P61P
Course Name: MAJOR PHYSICS PRACTICAL III

Upon completion of the course, the students will be able to

1. Construct experiments on optics and electricity and illustrate the related theoretical concepts.
2. Compute observed values and compare with standards.
3. Examine the measurements to draw valid conclusions and work co-operatively in a small group environment.

Subject Code: 17P62P
Course Name: MAJOR PHYSICS PRACTICAL IV

Upon completion of the course, the students will be able to

1. Understand and examine the structure of various number systems ,De-morgan's law, Boolean algebra and its application on digital design.
2. Generate different wave shapes using multi vibrator and oscillator circuits.
3. Knowledge in handling modern electronics practical equipments.

Subject Code: 17PPR6
Course Name: PROJECT

Upon completion of the course, the students will be able to

1. Learn problems formulate hypothesis, test, analyse, interpret and draw conclusions from data.
2. Identify relevant assumptions, formulate coherent arguments.
3. Act together as a group and work efficiently as a member of a team.

Subject Code: 17SEP61
Course Name: INTRODUCTION TO MICROCONTROLLERS 8051

Upon completion of the course, the students will be able to

1. Understand the architecture of pin description connection & memory organization in 8051 Microcontroller.
2. Enumerate the concept of input and output ports in 8051
3. Thorough knowledge in the assembly language programming tools

Subject Code: 17AP1
Course Name: MECHANICS, PROPERTIES OF MATTER AND SOUND

Upon completion of the course, the students will be able to

1. Gain the knowledge about basics of properties of matter.
2. Learn the fundamentals of harmonic oscillator model, including damped and forced oscillators.
3. Understand the Laws of Gravitation, Viscosity and Elasticity.

Subject Code: 17AP2
Course Name: THERMAL PHYSICS

Upon completion of the course, the students will be able to

1. Understand thermal expansion of solids and calculate the linear expansion of solids.
2. Learn the transfer of energy by conduction and convection.
3. Apply the various thermodynamics laws to the real system.

Subject Code: 17AP2P
Course Name: ALLIED PHYSICS PRACTICAL I

Upon completion of the course, the students will be able to

1. Learning the concept of moduli of elasticity in a series of experiments.
2. Understand the use of potentiometer for the calibration of electrical meters.
3. Gain the knowledge about the principles of laws of vibration through various experimental procedure.

Subject Code: 17AP3
Course Name: ELECTRICITY AND ELECTRONICS

Upon completion of the course, the students will be able to

1. Understand the value of resistance of resistor, inductance of inductor and capacitance of capacitor using colour code method.
2. Apply the knowledge of semiconductors to illustrate the function of basic electronic devices
3. Design various circuits using Op-Amp 741 and design logic gates.

Subject Code: 17AP4
Course Name: OPTICS

Upon completion of the course, the students will be able to

1. Illustrate the concept of dispersion, aberration in prism and light propagation in optical fibers.
2. Explore the theoretical and practical ideas of Interference, Diffraction & Polarization.
3. Comprehend the resolution of optical instruments and analyze the spectroscopy of prism and grating

Subject Code: 17AP4P
Course Name: ALLIED PHYSICS PRACTICAL II

Upon completion of the course, the students will be able to

1. Understand the concept of logic gate circuits.
2. Gain the knowledge about the applications of Op amp using adder and subtractor circuits
3. Focus on the spectrometer experiment using prism and grating

Subject Code: 19PC1
Course Name: SOLAR ENERGY

Upon completion of the course, the students will be able to

1. Identify the renewable and non-renewable energy resources and describe their applications.
2. Classify the type of solar energy collectors and cells.
3. Gain the knowledge about devise methods for energy storage systems

DEPARTMENT OF NUTRITION & DIETETICS U.G.

DEPARTMENT OF NUTRITION & DIETETICS

Programme Code: N **Programme Name:B.Sc. Nutrition & Dietetics**

Programme Outcomes

1. Understand the role of Food and Nutrients in health and Disease.
2. Provide nutrition education and diet counseling to individuals throughout the life span using a variety of communication strategies.
3. Apply technical skills, knowledge of health behavior, clinical judgment, and decision - making skills.
4. Perform food management functions in business, health-care, community and institutional arenas.
5. Assessing and evaluating the nutritional status of individuals and communities and their response to nutrition intervention.
6. Competence in the skills of assessment, planning, management and evaluation of food service, nutrition and dietetics services in institutional food, community nutrition.

Programme Specific Outcomes

1. Provides in-depth understanding of the role of food under specific diseased conditions.
2. Understanding the working of dietary department.
3. Formulate innovative nutritious novel food products.
4. Become a successful entrepreneur.
5. Apply skill based knowledge in food industry.
6. Analyze nutrients, quality of food, disease and dietary management.

Course Outcomes

SEMESTER - I

Subject Code: 17N11
Course Name: FOOD SCIENCE –I

Upon the completion of the course, the students will be able to

1. Gain knowledge on food groups and their functions.
2. Analyze different nutrients in food.
3. Acquire knowledge on different methods of cooking.
4. Understand the basic concepts behind food science and food preparation.
5. Identify and explain the specific functions of different foods in maintaining body health.

Subject Code: 17AN11
Course Name: HUMAN PHYSIOLOGY

Upon the completion of the course, the students will be able to

1. Explain the basic knowledge of human anatomy and physiology.
2. Identify and use proper terminology for describing the anatomy of the body.
3. Gain knowledge on parts of the body and its diseases and disorders.
4. Illustrate the processes of the respective various body system.
5. Elaborate the regulation of body fluids and blood parameters.

Subject Code: 17SEN11
Course Name: SPICES AND HERBAL NUTRITION

Upon the completion of the course, the students will be able to

1. Understand the role of spices and herbs in human health.
2. Learn the importance of major spices.
3. Learn the importance of minor spices.
4. Gain knowledge on health benefits of herbs.
5. Apply knowledge in the preparation of herbal products.

Subject Code: 17SEN12
Course Name: FOOD SAFETY AND QUALITY CONTROL

Upon the completion of the course, the students will be able to

1. Acquire knowledge on the importance of quality assurance in food industry.
2. Monitor and evaluate food laws and standards in food service industry.
3. Comprehend knowledge on national and international food standards organizations.
4. Learn the importance of food specification with reference to various food additives.
5. Gain in-depth knowledge on various food safety measures of food products.

Subject Code: 17NMN11
Course Name: BASIC NUTRITION

Upon the completion of the course, the students will be able to

1. Learn nutrients in foods and the specific functions in maintaining health.
2. Identify the good sources of foods and its nutrients.
3. Apply knowledge of the role of nutrition and healthy food habits.
4. Aware of disease prevention and wellness.
5. Provoke healthy food choices to prevent health problems.

SEMESTER - II

Subject Code: 17N21
Course Name: FOOD SCIENCE –II

Upon the completion of the course, the students will be able to

1. Apply process of different foods.
2. Analyze the nutritional composition of various food groups.
3. Gain knowledge on culinary use in sugar cookery.
4. Understand the concept of sensory evaluation of foods.
5. Identify and control adulterants in various foods and evaluate food quality.

Subject Code: 17N2P
Course Name: FOOD SCIENCE I & II PRACTICALS

Upon the completion of the course, the students will be able to

1. Able to conduct basic sensory analysis of food.
2. Demonstrate skills on determination of edible portion of food.
3. Have an in-depth knowledge on application of food science.
4. Acquire skills on different methods of cooking.
5. Formulate novel recipes by applying knowledge on cooking methods.

Subject Code: 17AN2
Course Name: FOOD MICROBIOLOGY

Upon the completion of the course, the students will be able to

1. Understand about characteristics of different microorganism associated to food.
2. Identify the sources, and contamination of various food substances by microbes.
3. Gain knowledge on microbial spoilage of food and responsible microorganisms.
4. Comprehend the key aspects of food poisoning and infection, bacterial food borne diseases and prevention.
5. Acquire knowledge on new trends in food microbiology.

Subject Code: 17SEN21
Course Name: NUTRITIONAL ASSESSMENT

Upon the completion of the course, the students will be able to

1. Assess the nutritional status of the community.
2. Addressing the nutritional problems in the community through proper evaluation.
3. Understand the role of nutrition at community level.
4. Provide nutrition education to the needy people.
5. Alleviate the nutrition problems at national level.

Subject Code: 17SEN22
Course Name: HOMEFOOD CATERING

Upon the completion of the course, the students will be able to

1. Acquire knowledge on menu planning using different food items in small scale production.
2. Learn the different methods of cooking.
3. Apply the principles of menu planning.
4. Develop skills in fusion cooking.
5. Gain knowledge in food preservation.

Subject Code: 17NMN2
Course Name: FOOD PRESERVATION

Upon the completion of the course, the students will be able to

1. Understand the importance of food preservation.
2. Acquire knowledge on various principles of food preservation.
3. Comprehend information regarding application of low temperature, high temperature, drying in foods
4. Enable to prepare preserved foods using locally available seasonable foods.
5. Become a n individual entrepreneur.

SEMESTER - III

Subject Code: 17N31

Course Name: FUNDAMENTALS OF NUTRITION

Upon the completion of the course, the students will be able to

1. Understand the functions of micronutrients with health.
2. Comprehend the metabolism of macronutrients with health.
3. Correlate knowledge of nutrients with their deficiencies.
4. Elaborate the importance of holistic nutrition, among all age groups.
5. Generate wellness and healthy lifestyle adoption in community.

Subject Code: 17AN31
Course Name: BAKERY

Upon the completion of the course, the students will be able to

1. Gain basic knowledge relating to the principles of baking.
2. Acquire knowledge on role of various ingredients used in bakery recipes.
3. Educate the students to use additives and preservatives judiciously.
4. Identify and control faults in baking.
5. Establish a bakery business.

SEMESTER - VI

Subject Code: 17N41
Course Name: NUTRITIONAL BIOCHEMISTRY

Upon the completion of the course, the students will be able to

1. Understand the basic concepts of biochemistry.
2. Gain knowledge on metabolism of carbohydrate, protein and lipids..
3. Acquire knowledge on functions and mode of action of different hormones and enzymes.
4. Comprehend the Biochemical implications of foods and diseases
5. Identify various metabolic disorders.

Subject Code: 17N41P
Course Name: NUTRITIONAL BIOCHEMISTRY PRACTICALS

Upon the completion of the course, the students will be able to

1. Understand basic lab techniques.
2. Acquire skills on preparation of solutions.
3. Perform qualitative and quantitative analysis of sugars, protein, and vitamin C.
4. Competent in handling analytical equipments
5. Interpretation of analytical results.

Subject Code: 17AN41
Course Name: FOOD PRESERVATION

Upon the completion of the course, the students will be able to

1. Understand the basic knowledge of principles of food preservation.
2. Comprehend the ambient temperature processing.
3. Distinguish between high and low temperature processing.
4. Differentiate between syruping and brining.
5. Distinguish between chemical preservation and fermentation.

Subject Code: 17AN41P
Course Name: BAKERY AND FOOD PRESERVATION PRACTICALS

Upon the completion of the course, the students will be able to

1. Acquire knowledge to weigh and measure ingredients used in baking.
2. Demonstrate skills in differentiating the qualities of all purpose flour.
3. Gain practical knowledge to prepare various bakery recipes.
4. Enhance the knowledge on usage of sugar, salt and chemicals in fruits and vegetables.
5. Become as an entrepreneur in small scale food industries.

SEMESTER - V

Subject Code: 17N51

Course Name: NUTRITION THROUGH LIFE CYCLE

Upon the completion of the course, the students will be able to

1. Understand the importance of nutrition in various stages of life.
2. Learn the concept of RDA, Recommendations and Guidelines.
3. Comprehend the physiological changes and nutritional requirements in pregnancy and lactation period.
4. Construct infant supplementary feeds, menu plan for preschool children, and nutritional food choices for adolescents.
5. Suggest suitable menus for old age people.

Subject Code: 17N52
Course Name: DIETETICS – I

Upon the completion of the course, the students will be able to

1. Comprehend the knowledge of role of dietitian in dietary department.
2. Understand the basic principles of diet and diet therapy.
3. Acquire the knowledge of modification of normal diet for therapeutic purposes.
4. Relate the causes, symptoms and onset of various types of diseases.
5. Understand the implication of diet under various diseased conditions.

Subject Code: 17NE5A
Course Name CATERING MANAGEMENT

Upon the completion of the course, the students will be able to

1. Gain in-depth knowledge of food service industries.
2. Apply basic managerial skills.
3. Understand organization structures in food service institutions.
4. Acquire knowledge on personnel management.
5. Enable to fix cost for food items and maintaining the accounts.

Subject Code: 17NE5B
Course Name: FUNCTIONAL FOODS AND NUTRACEUTICALS

Upon the completion of the course, the students will be able to

1. Comprehend the role of functional foods.
2. Understand the role of Nutraceuticals.
3. Gain in-depth knowledge on phytochemicals.
4. Analyze the correlation between food and health components.
5. Emphasize on consumer marketing of health foods.

Subject Code: 17SEN51
Course Name: HOTEL HOUSEKEEPING

Upon the completion of the course, the students will be able to

1. Understand the importance of housekeeping department.
2. Apply managerial functions in housekeeping department.
3. Evaluate the work and staff control housekeeping department.
4. Gain knowledge on laundry services operation in housekeeping department.
5. Analyze current trends in housekeeping department.

SEMESTER - VI

Subject Code: 17N61
Course Name: FOOD PROCESSING

Upon the completion of the course, the students will be able to

1. Understand the principles of the various Food Processing Methods.
2. Comprehend the processing methods of different foods.
3. Explore the principle of preservation and processing of Cereal, Pulse, and Nuts & Oils.
4. Apply the principle of preservation and processing of vegetables based products.
5. Acquire skills to formulate fruits based preserved products.

Subject Code: 17N62
Course Name: DIETETICS –II

Upon the completion of the course, the students will be able to

1. Comprehend the dietary management for nutritional deficiency diseases and lung diseases.
2. Analyze the causes, symptoms and dietary management for febrile conditions.
3. Apply the principles of diet for the management of metabolic diseases.
4. Understand the dietary management for special conditions like allergy and burns.
5. Develop the dietary models for HIV.

Subject Code: 17NE6A
Course Name: POST HARVEST TECHNOLOGY

Upon the completion of the course, the students will be able to

1. Gain knowledge about post-harvest technology.
2. Enable the storage of agricultural products during the whole year in full quality.
3. Elaborate on spoilage agents and pest control methods.
4. Acquire knowledge on importance of pre-harvest physiology for fruits and vegetables on the long term storage of horticultural crops.
5. Comprehend the agencies governing food losses.

Subject Code: 17NE6B
Course Name: FOOD SAFETY AND QUALITY CONTROL

Upon the completion of the course, the students will be able to

1. Gain in-depth knowledge on various food safety measures of food products.
2. Acquire knowledge on the importance of quality assurance in food industry.
3. Understand on various tests and quality assessment, using standards for quality assessment and food safety.
4. Learn the importance of food specification with reference to various food additives.
5. Monitor and evaluate food laws and standards in food service industry.

Subject Code: 17N61P
Course Name: NUTRITION THROUGH LIFE CYCLE PRACTICALS

Upon the completion of the course, the students will be able to

1. Understand the nutritional requirements through the life cycle.
2. Prepare a balanced diet for various age groups.
3. Prepare and serve a balanced diet.
4. Calculate the nutrients contributed by a diet.
5. Suggest dietary guidelines for different age groups.

Subject Code: 17N62P
Course Name: DIETETICS I & II PRACTICALS

Upon the completion of the course, the students will be able to

1. Acquire the skills and techniques involved in the planning and preparation of therapeutic diets for various ailments.
2. Apply dietary principles to plan therapeutic diets for disease conditions.
3. Demonstrate skills in preparing appropriate therapeutic diets.
4. Calculate the nutrient content of diets.
5. Become a dietitian.

Subject Code: 17NEPR6
Course Name: DIETETICS INTERNSHIP – PROJECT

Upon the completion of the course, the students will be able to

1. Gain knowledge in hospital administration.
2. Acquire skills in maintaining medical records.
3. Develop the skills in effective planning, production and distribution at the hospital dietary department.
4. Compile the functions of the hospital dietary food service.
5. Plan and counsel patients effectively.

Subject Code: 17SEN61
Course Name: FRONT OFFICE MANAGEMENT

Upon the completion of the course, the students will be able to

1. Understand the importance of front office management.
2. Identify the independent components of the lodging front office system.
3. Comprehend the functions of basic reservation procedures in front desk.
4. Gain knowledge to use basic amenities functions in lodging organization.
5. Apply skills in front office supervision and check in & check out management.

COMPUTER APPLICATIONS

U.G.

DEPARTMENT OF COMPUTER APPLICATIONS

Programme Code: J **Programme Name: BCA**

Programme Outcomes

1. Exhibit understanding of broad business concepts and principles. (National)
2. To identify and define problems and opportunities.(Local)
3. Demonstrate the ability to identify a business problem, isolate its key components, analyze and assess the salient issues, set appropriate criteria for decision making, and draw appropriate conclusions and implications for proposed solutions. (Global)
4. Demonstrate the capabilities required to apply cross-functional business knowledge and technologies in solving real-world business problems (Global)
5. Demonstrate use of appropriate techniques to effectively manage business challenges. (National)
6. Capable of recognizing and resolving ethical issues. (National)

Programme Specific Outcomes

BCA Programme has been designed to prepare graduates for attaining the following specific outcomes:

1. Develop the skill to apply knowledge of mathematics, computer science and management in practice. (Global)
2. An ability to enhance not only comprehensive understanding of the theory but its application too in diverse field. (National)
3. The program prepares the young professional for a range of computer applications, computer organization, techniques of computer networking, software engineering, Web Designing, Data mining, Networking and Android App development. (Global)
4. Learn to design a computing system to meet desired needs within realistic constraints such as safety, security and applicability in multidisciplinary teams with positive attitude.(Global)
5. Skill to communicate effectively. (National)

Course Outcomes

SEMESTER – I

Subject Code: 17J11
Course Name: PROGRAMMING IN C

Upon completion of the course, the students will be able to

1. To understand concepts in Programming.
2. Identify the situations where computational methods and computers would be useful.
3. Give a computational problem, identify and abstract the programming task involved.
4. Approach the programming tasks by using techniques and learn to write pseudo-code.
5. Choose the right data representation formats based on the requirements of the problem.

Subject Code: 17J1P
Course Name: PROGRAMMING IN C LAB

Upon completion of the course, the students will be able to

1. Read, understand and trace the execution of programs written in C language.
2. Write the C code for functions and structures.
3. Implement Programs with pointers and arrays, perform pointer arithmetic, and use the pre-processor.
4. Write programs that perform operations using derived data types and string manipulations.
5. Able to implement the algorithms and draw flowcharts for solving Mathematical and Engineering problems.

Subject Code: 17AJ1
Course Name: FINANCIAL ACCOUNTING

Upon completion of the course, the students will be able to

1. Write financial statements in accordance with appropriate standards.
2. Prepare ledger accounts using double entry bookkeeping and record journal. entries accordingly.
3. Interpret the business implications of financial statement information.
4. Organize accounting information for planning and control and for the evaluation. of finance.
5. Develop Bank reconciliation statement from incomplete statement.

Subject Code: 17SEJ1P
Course Name: OFFICE AUTOMATION LAB

Upon completion of the course, the students will be able

1. To prepare documentation.
2. To perform accounting operations to perform presentation skills.
3. Exhibit improved understanding of computer operations.
4. To Operate Ms-office operations.
5. Gain skills & knowledge to browse and get updated world wide information.

Subject Code: 17NMJ1
Course Name: PC- SOFTWARE

Upon completion of the course, the students will be able to

1. Describe the usage of computers and why computers are essential components in business and society.
2. Utilize the Internet Web resources and evaluate on-line e-business system.
3. Solve common business problems using appropriate Information Technology applications and systems.
4. Identify the categories of programs, organize and work with files and folders.
5. Describe various types of networks standards and communication software.

SEMESTER – II

Subject Code: 17J21
Course Name: OBJECT ORIENTED PROGRAMMING WITH C++

Upon completion of the course, the students will be able to

1. Comprehend the features of C++ supporting object oriented programming.
2. Perceive the concept of operators, data types ,constructors and looping statements.
3. Apprehend the concept of arrays, functions and string handling operations in C++.
4. Interpret how to apply the major object-oriented concepts to implement object oriented programs in C++, Encapsulation, Inheritance and Polymorphism.
5. Understand advanced features of C++ specifically Stream I/O, Templates and Operator Overloading.

Subject Code: 17J2P
Course Name: OBJECT ORIENTED PROGRAMMING WITH C++ LAB

Upon completion of the course, the students will be able to

1. Implement and test the concepts of Classes & Objects, friend Functions, Constructors and Destructors in program design of a few example exercises.
2. Design & implement a few forms of inheritance through a few exercises.
3. Test the performance of Polymorphism and Generic Programming through a few exercises.
4. To understand how C++ improves C with object-oriented features.
5. To grasp the concept of data abstraction and encapsulation.

Subject Code: 17AMJ2
Course Name: RESOURCE MANAGEMENT TECHNIQUES

Upon completion of the course, the students will be able to

1. To be familiar with the functions of Operations Research (OR).
2. Solve the Foundation mathematics and statistics.
3. Solve the Linear Programming (LP), LP and allocation of resources, Linearity requirement Maximization and Minimization problems.
4. Solve the graphical LP Minimization solution, formulating the Simplex model.
5. To apprehend the concept of Transportation problem and game theory.

Subject Code: 17SEJ2P
Course Name: LINUX LAB

Upon completion of the course, the students will be able to

1. Make out the basic commands of linux operating system and can write shell scripts
2. Create file systems and directories and operate them
3. Create processes background and fore ground etc..by fork() system calls
4. Recognize the concept of shared memory segments, pipes ,message queues and can exercise interprocess communication
5. Implement shell scripts and sed commands.

Subject Code: 17NMJ2
Course Name: ANIMATION USING FLASH

Upon completion of the course, the students will be able to

1. Create animated graphics, add sound and interactivity.
2. To create vector graphics-based animation programs with full screen navigation interfaces.
3. To study the graphics illustration simple interactivity in antialiased, resizable file format
4. Gain in-depth knowledge on designing and developing websites.
5. Gain proficiency in techniques of 2D and 3D software's.

SEMESTER – III

Subject Code: 17J31

Course Name: DIGITAL PRINCIPLES AND COMPUTER ORGANIZATION

Upon completion of the course, the students will be able to

1. Demonstrate knowledge of binary number theory, Boolean algebra and binary codes.
2. Analyze and design systems using standard gates and minimization methods.
3. Examine and design systems composed of standard modules, such as Multiplexers, Flip-flops, Demultiplexers and decoders.
4. Analyze and design the Basic Computer Organization structure.
5. Study the concept of Central Processing Units, I/O, and Memory.

Subject Code: 17J32
Course Name: JAVA PROGRAMMING

Upon completion of the course, the students will be able to

1. Grasp the use of OOPs concepts.
2. Comprehend the use of abstractions, data types, operators and control statements.
3. Analyze the concept of strings, functions and Applets
4. Apprehend the use of Packages and Interface in Java.
5. To develop and understand Exception handling, Multithreaded applications.

Subject Code: 17J3P
Course Name: JAVA PROGRAMMING LAB

Upon completion of the course, the students will be able to

1. Implement Object Oriented programming concept using basic syntaxes of control structures, strings and function for developing skills of logic building activity.
2. Identify classes, objects, members of a class and the relationships among them for a finding the solution to specific problem.
3. Demonstrates how to achieve reusability using inheritance, interfaces and packages and describes faster application development can be achieved.
4. Demonstrate understanding and use of different exception handling mechanisms and concept of multithreading for robust faster and efficient application development.
5. Identify and describe common abstract user interface components to design GUI in Java using Applet, AWT along with response to events.

Subject Code: 17AMJ3
Course Name: GRAPH THEORY

Upon completion of the course, the students will be able to

1. Solve problems using basic graph theory.
2. Identify induced sub graphs, cliques, matchings in graphs.
3. Determine the concept of Hamiltonian graphs and Eulerian graphs.
4. Solve problems involving vertex and edge connectivity, planarity and crossing numbers
5. Analyze the problems using vertex and edge coloring.

Subject Code: 17SEJ3P
Course Name: MULTIMEDIA LAB

Upon completion of the course, the students will be able to

1. Design and apply two dimensional graphics and transformations.
2. Propose and apply three dimensional graphics and transformations.
3. Apply Illumination, color models and clipping techniques.
4. Understand the different types of Multimedia File Format**.**
5. Prepare and present a multimedia portfolio containing electronic media that demonstrates multimedia and problem-solving skills.

SEMESTER – IV

Subject Code: 17J41
Course Name: DATA STRUCTURES AND COMPUTER ALGORITHMS

Upon completion of the course, the students will be able to

1. Choose appropriate advanced data structures for given problem.
2. Analyze the concept of stacks, queues and linked list.
3. Select appropriate Binary trees and Binary search trees.
4. Apply the dynamic programming techniques and to apply the greedy programming technique to solve the problems.
5. Illustrate various types of sorting, searching and hashing techniques.

Subject Code: 17J4P
Course Name: DATA STRUCTURE AND COMPUTER ALGORITHMS LAB

Upon completion of the course, the students will be able to

1. Select appropriate data structures as applied to specified problem definition.
2. Implement operations like searching, insertion, and deletion, traversing mechanism etc. on various data structures.
3. Implement linear and Non-Linear data structures.
4. Apply appropriate sorting and searching technique for given problem.
5. Design an algorithm for binary tree and binary tree traversals.

Subject Code: 17J42
Course Name: RELATIONAL DATABASE MANAGEMENT

Upon completion of the course, the students will be able to

1. Investigate Database design methodology.
2. Acquire knowledge in fundamentals of Data Base Management System.
3. Analyze the difference between traditional file system and RDBMS.
4. Handle with different Data Base languages.
5. Draw various data models for Data Base and Write queries mathematically.

Subject Code: 17SEJ4P
Course Name: RDBMS LAB

Upon completion of the course, the students will be able to

1. Gain knowledge about SQL Fundamentals.
2. Create of database Packages, Perform Unary & Binary table operations.
3. Handle with different Data Base languages.
4. Create Table View, Log & Triggers.
5. Handle online Transactions.

Subject Code: 17AMJ4
Course Name: NUMERICAL METHODS

Upon completion of the course, the students will be able to

1. Apply Numerical analysis which has enormous application in the field of Science and some fields of Engineering.
2. Understand the concept of finite precision computation.
3. Familiar with numerical solutions of nonlinear equations in a single variable.
4. Analyze the concept of numerical integration and differentiation, numerical solution of ordinary differential equations.
5. Perceive with calculation and interpretation of errors in numerical method.

SEMESTER – V

Subject Code: 17J51
Course Name: OPERATING SYSTEM

Upon completion of the course, the students will be able to

1. Describe the concept of single processor and multiprocessor, system calls
2. Explain, contrast and compare different Structures for Operating Systems.
3. Grasp the term process management, concurrent processes and threads, memory management, virtual memory concepts, deadlocks.
4. Understand the concept of scheduling and synchronization.
5. Acquire knowledge in file system.

Subject Code: 17J52
Course Name: DATA COMMUNICATION AND COMPUTER NETWORKS

Upon completion of the course, the students will be able to

1. Define, use and implement Computer Networks and the basic components of a Network system.
2. Know and Apply pieces of hardware and software to make networks more efficient, faster, more secure, easier to use, able to transmit several simultaneous messages, and able to interconnect with other networks.
3. Differentiate the various types of network configurations and applying them to meet the changing and challenging networking needs of organizations.
4. Understand the layers of OSI and TCP and get knowledge about congestion control and network security.
5. Describe the different protocols, software, and network architectures.

Subject Code: 17J53
Course Name: DOT NET PROGRAMMING

Upon completion of the course, the students will be able to

1. Understand .NET Framework and describe some of the major enhancements to the new version of C#.
2. Learn to create applications using Microsoft Windows Forms.
3. Study the concept of application creation using ADO. NET.
4. Learn how to work with XML Documents.
5. Use Crystal Reports that may help in creating reports related to the project

Subject Code: 17J5P
Course Name: DOT NET PROGRAMMING LAB

Upon completion of the course, the students will be able to

1. Implement Visual Basic.Net classes, objectives, and class relationships.
2. Develop and write documented programs applying Object Oriented principles using Visual Basic.Net.
3. Create member functions and demonstrate the use of Visual Basic.Net syntax and exception handling.
4. Design, create and use a User Interface with forms, button boxes, scroll bars, labels, and graphics.
5. Utilize the details of structured programming techniques.

Subject Code: 17JE5A
Course Name: COMPUTER GRAPHICS

Upon completion of the course, the students will be able to

1. Understand the survey and various applications of computer graphics.
2. To study the concept CRT monitors, hard copy and I/O devices.
3. Facilitate the details of Line drawing algorithms.
4. Analyze the term line attributes , fill color patterns.
5. To illustrate the term transformation such as translation, rotation and scaling.

Subject Code: 17JE5B
Course Name: ENTERPRISE RESOURCE PLANNING

Upon completion of the course, the students will be able to

1. Understand ERP software package, software modules helps in integrating data and real time information.
2. Recognize planning and management of resources as per the requirements of company.
3. Identify how to control and manage the organizations at different locations.
4. Understand how to get Return on Investment (ROI) for an organization
5. Appreciate how to control different functions and enhance company efficiency

Subject Code: 17SEJ5P
Course Name: NETWORKING LAB

Upon completion of the course, the students will be able to

1. Comprehend fundamental underlying principles of computer networking
2. Troubleshoot wireless LANs and VLANs.
3. Apply mathematical foundations to solve computational problems in computer networking
4. Design and build a wireless LAN.
5. Compare routing algorithms, practice packet and file transmission between nodes.

SEMESTER – VI

Subject Code: 17J61

Course Name: SOFTWARE ENGINEERING

Upon completion of the course, the students will be able to

1. Select and implement different software development process models.
2. Extract and analyze software requirements specifications for different projects.
3. Develop some basic level of software architecture/design.
4. Apply standard coding practice.
5. Define the basic concepts and importance of Software project management concepts like cost estimation, scheduling and reviewing the progress.

Subject Code: 17J62
Course Name: WEB TECHNOLOGY

Upon completion of the course, the students will be able to

1. To understand the concept of HTML 5 using links, tables and forms.
2. Analyze the concept of background colors, styles and positioning.
3. To study the terms in Java Script such as arrays and functions
4. To learn the concept of mysql database query for insertion, deletion and updation operations.
5. Able to know the concept of data types, arrays, strings and cookies in PHP.

Subject Code: 17J6P
Course Name: WEB TECHNOLOGY LAB

Upon completion of the course, the students will be able to

1. Write a program for creation of tables and forms using HTML 5.
2. To study the concept of changing background color and styles in CSS.
3. Facilitate the term arrays and function in Java Script.
4. Debug, test the mysql database query to perform insertion , deletion and updation operations.
5. Understand the various types of operators, data types, strings and cookies.

Subject Code: 17JE6A
Course Name: DATA MINING

Upon completion of the course, the students will be able to

1. Design a data mart or data warehouse for any organization
2. Extract knowledge using data mining techniques
3. Adapt to new data mining tools
4. Explore recent trends in data mining such as web mining, multimedia mining, text mining.
5. Implement data mining techniques like classification, clustering, association rule and decision tree etc on the real data set.

Subject Code: 17JE6B
Course Name: COMPILER DESIGN

Upon completion of the course, the students will be able to

1. Understand the requirement of compiler design.
2. Apply working skills in theory and application of finite state machines, recursive descent, production rules, parsing, and language semantics.
3. Understand about powerful compiler generation tools.
4. Apply the ideas, the techniques, and the knowledge acquired for the purpose of other software design.
5. Design the structures and support required for compiling advanced language features.

Subject Code: 17JPR6
Course Name: PROJECT

Upon completion of the course, the students will be able to

1. Learn critical thinking skills and inquiring skills through application-oriented project development in Computer Science and Information Technology in a team-work environment.
2. Learn literature survey skills.
3. Refine communications skills and public speaking skills through written and oral presentations.
4. Learn problem solving skills.
5. Learn proposal development skills to initiate an application-oriented project in the areas of Computer Science and Information Technology.

Subject Code: 17SEJ6P
Course Name: ANDROID LAB

Upon completion of the course, the students will be able to

1. Describe the basic components of an Android application.
2. Define the lifecycle methods of Android application components.
3. Describe the basics of event handling in Android.
4. Demonstrate and deploy various tools in Android application.
5. Illustrate the basics of graphics and multimedia support in Android.

DEPARTMENT OF COMMERCE(CA)

U.G.

DEPARTMENT OF COMMERCE WITH CA

Programme Code: D **Programme Name: B.Com (Computer Applications)**

Programme Outcomes

1. Complete Professional Courses like CA, CS, CMA, MBA, M.Com, CPA and ACCA Successfully.
2. Become Chartered Accountant, Chief Internal Auditor, Chief Accountant, Legal Advisor, Managers and Sales representatives in multinational companies.
3. Acquire skill to select teaching and research as a Profession.
4. Became successful and socially responsible women entrepreneurs with creative ideas.
5. To gain knowledge that helps to face various competitive examination.

Programme Specific Outcomes

On completion of B.Com (CA) Programme, the students would be able to

1. To become experts in accounting methodology and enhance professionalism through innovative practices, to be tactful in facing unforeseen demands and changes in situational roles in industry and academics.
2. To gain through subject knowledge from practical experiences, industrial learning and internship.
3. To develop entrepreneurial skills, groups activities, spirit of coordination shaping up their professionalism.
4. To adopt innovative opportunities, latest technologies that helps to develop new business.
5. To enhance informative and expressive computer knowledge that helps them to face various competitive examination.

Course Outcomes

SEMESTER – I

Subject Code: 17D1P
Course Name: MS-OFFICE LAB

Upon completion of the course, the students will be able to

1. Describe the usage of computers and to understand its significance in business and society.
2. Understand a Word Processor, Create, Edit, Format documents, work with tables, Import and Export data between files, proofing a document save, Protect and Print documents.
3. Recognize the segregation of Microsoft Office program to create both the professional and academic documents.
4. The use of Microsoft Office program to create personal, academic and business documents following the current Professional and/or Industrial standard.

Subject Code: 17AD1
Course Name: COMPUTER FUNDAMENTAL

Upon completion of the course, the students will be able to

1. Understand the fundamental concepts of computers with current updation of knowledge.
2. Understand Decimal, Binary, Octal, Hexadecimal Number System.
3. Familiarize CPU, Memory and storage device of computers.
4. Understand the Input and Output Devices of Computer.
5. Understand the Types of Computer Network and its Topology.

SEMESTER - II

Subject Code: 17D2P

Course Name: PROGRAMMING IN C LAB

Upon completion of the course, the students will be able to

1. Read, understand and trace the execution of programs in C language.
2. Write the C code for a given algorithm.
3. Implement Programs using pointers and arrays, perform pointer arithmetic using the pre-processor.
4. To Practice the students to write C Programs on their own.

Subject Code: 17AD2
Course Name: PROGRAMMING IN C

Upon completion of the course, the students will be able to

1. Understand the fundamental concept of C Structure, declaration of constants and variables.
2. Populate and evaluate the type of Operators and Arithmetic operation of C Program.
3. Declare and Enforce Decision Making and Branching statements in C Program.
4. Understand and effectively explain about the Dimensional Arrays, Dynamic Arrays and String Variable.
5. Understand and Define the Structure and Union of C Program.

SEMESTER - III

Subject Code: 17D31
Course Name: VISUAL BASIC

Upon completion of the course, the students will be able to

1. Design, create, build, and debug the Visual Basic applications.
2. Explore Visual Basic‘s Integrated Development Environment (IDE).
3. Implement syntax rules in Visual Basic programs.
4. Explain the variables and data types used in the development of programs.
5. Apply arithmetic operations for displaying the numeric output.
6. Write and apply the decision structures for determining the different operations.
7. Write and apply the loop structures to perform repetitive tasks.
8. Write and apply procedures, sub-procedures, and the functions.

Subject Code: 17D3P
Course Name: VISUAL BASIC LAB

Upon completion of the course, the students will be able to

1. Build a windows Application.
2. Create a user interface following good GUI design guidelines.
3. Change the attributes of control by setting properties at design time or in code.
4. Write coding procedures to bring it into business application.
5. Create classes and objects.
6. Debug an application.
7. Access data from a database.

SEMESTER - IV

Subject Code: 17D41
Course Name: WEB TECHNOLOGY

Upon completion of the course, the students will be able to

1. Interpret the concept of internet, protocols and its usage.
2. Determine the concept of HTML and Dynamic HTML.
3. Identify the usage of JSP in java.
4. Develop applications using ASP Dot Net.
5. Understand the concepts in programming and scripting language.

Subject Code: 17D4P
Course Name: TALLY LAB

Upon completion of the course, the students will be able to

1. Describe the components in Tally screen, maintaining the company data and preparation of trial balance, profit and loss account and balance sheet.
2. Identifying the Inventory details in stock category, stock group and stock item.
3. Prepare the order processing in sales order and purchase order.
4. Understand the Bill wise details and cost Centre.
5. Categorizing GST and payroll accounting.

Subject Code: 17SED4P
Course Name: DESKTOP PUBLISHING PRACTICAL

Upon completion of the course, the students will be able to

1. To understand database, Relationship and creating Table through Design.
2. Create Photoshop screen, creating digital images converting B/W to Color.
3. Create Photoshop by using Color Correction Techniques and Animation.
4. Understand PageMaker using tools and workspace, labels, Pamphlets and advertisement.
5. CorelDraw- Understand tools and workspace, graphics, multicolor design, web graphics

SEMESTER - V

Subject Code: 17D52
Course Name: DATABASE MANAGEMENT SYSTEM

Upon completion of the course, the students will be able to

1. Understand, appreciate and effectively explain concept of Database and Database Management System.
2. Declare and Enforce Relational data structure and Data Integrity on a database using RDBMS.
3. Design and Develop a Database Modelling for a given Domain.
4. Populate and Query a database using SQL Command and SQL Operators.
5. Populate and Query including Subqueries, Aggregate Function and Join Function.

Subject Code: 17D5P
Course Name: ORACLE LAB

Upon completion of the course, the students will be able to

1. Create Data Definition Language with Constraint.
2. Create DML.
3. To build in Queries in various function Character Function, Numeric Function, Date Function.
4. To create SQL using Logical operator and Function.
5. Create PL/SQL Program.
6. Create Program for exceptional Handling.
7. Create Program for exceptional Handling.

SEMESTER - VI

Subject Code: 17C62
Course Name: JAVA PROGRAMMING

Upon completion of the course, the students will be able to

1. Understand the fundamental concept Java Program
2. Populate and Evaluate Types of Operators and Arithmetic operation of Java Program.
3. Declare and Enforce Decision Making and Branching statement of Java Program.
4. Understand and effectively explain about Dimensional Arrays.
5. Understand and Define Java Applets.

Subject Code: 17PRC6
Course Name: PROJECT

Upon completion of the course, the students will be able to

1. Understand and know how to develop java Dot Net project.
2. Use an integrated development environment to write, compile and run the project.
3. Use a version control system to track source code in a project.

DEPARTMENT OF CHEMISTRY

U.G.

DEPARTMENT OF CHEMISTRY

Programme code: K **Programme Name: B.Sc., Chemistry**

Programme Outcomes

1. Students aid strong knowledge in fundamentals and applications of organic, inorganic, physical, analytical chemistry and also in inter-disciplinary subjects such as Green, Nano, Environmental, Forensic, Pharmaceutical chemistry etc.,
2. After the completion of the degree, they will be able to work in various fields such as cement industry, petrochemical industry, rubber industry, fertilizer industry, paint industry, food safety, research laboratory, pharma companies, schools, public sectors etc.,
3. Students appreciate the great role of chemistry in day-to-day life.
4. Understands the safe handling of chemicals, environmental issues and key issues that faces society through energy, health and medicine.
5. Motivate them to involve in research and tackle the new challenges.

Program Specific Outcomes

On completion of B.Sc Chemistry Programme, the Students would be able to:

1. Explain nomenclature, stereochemistry, structures, reactivity, and mechanism of the chemical reactions.
2. Perform scientific experiments skillfully by application of procedural knowledge.
3. Enhance the ideas about research in chemistry and develop knowledge of significance in scientific concepts which find applications in industry, medicine and modern research.
4. Gain the knowledge of Chemistry through theory and practical.
5. Identify chemical formulae and solve numerical problems.
6. Understand good laboratory practices and safety.
7. Make aware and handle the sophisticated instruments/equipments.

Course outcomes

SEMESTER- I

Subject Code:17K11
Course name: INORGANIC, ORGANIC AND PHYSICAL CHEMISTRY –I

Upon completion of the course, the students will be able to

1. State the fundamental concepts of atomic structure, explain the periodic properties and its applications.
2. Explain the formation of chemical bonding, VB theory and MO theory.
3. Understand the concepts of electron displacement effect, reaction intermediate.
4. Write the mechanism of substitution, elimination reactions.
5. Recognize kinetic theory of ideal gases, gas laws, vanderwaal's equation, Joule Thomson effect and inversion temperature.

Subject. Code: 17SEK11
Course Name: LABORATORY TECHNIQUES

Upon completion of the course, the students will be able to

1. Inculcate the selection and proper use of emergency equipment (e.g., fire extinguishers, eyewash stations, safety showers, spill kits, first aid kits, fire alarms, and fire blankets).
2. Understand the techniques of semi micro qualitative analysis in the removal of interfering anions,
3. Get insight into the applications of solubility product principle, complication reactions.
4. Define concentration systems: molarity, molality, normality
5. Differentiate post precipitation and co-precipitation.
6. Explain recrystallisation of solid, experimental techniques of fractional distillation and distillation under pressure for the purification of liquids.

Subject. Code: 17SEK12
Course Name: INDUSTRIAL CHEMISTRY

Upon completion of the course, the students will be able to

1. Understand the manufacturing process of matches and explain the preparation of TNT, RDX explosives.
2. Enumerate the manufacturing method of Portland cement & glass.
3. Illustrate the manufacturing methods and applications of fertilizer.
4. Explain the isolation of natural rubber, vulcanization, applications of synthetic rubber.
5. Classify plastics, knowing their preparation and applications.

Subject. Code: 17NMK1
Course Name: DAIRY SCIENCE

Upon completion of this course, the student will be able to:

1. Explain the composition, detection of adulteration in milk and milk products.
2. Demonstrate milk processing , milk powder processing methods.
3. Comment on the preparations of butter, cheese, ghee, ice cream.

SEMESTER-II

Subject Code: 17K21
Course name: INORGANIC, ORGANIC AND PHYSICAL CHEMISTRY –II

Upon completion of this course, the student will be able to:

1. Illustrate the mechanism of atom bomb, hydrogen bomb formation.
2. Compare the properties of α,β,γ radiations and mention the applications radioactive isotopes, carbon dating.
3. Explain acid, base concepts and be familiar with the balancing of redox equations.
4. Outline the methods of preparation in alkanes, alkenes, alkynes, aromatic hydrocarbons and its uses.
5. Give brief account on crystal systems, space lattice, unit cell, laws of crystallography, Schottky defect, Frenkel defect.

Subject. Code: 17SEK21
Course Name: MEDICINAL CHEMISTRY

Upon completion of this course, the student will be able to:

1. Understand the terminology in drug chemistry: Pharmacy, Pharmacology, Pharmaco dynamics etc.
2. Explain the mode of action, applications of Anaesthetics, Analgesics, and Antipyretics.
3. Outline the need of sulphadrugs, antibiotics, antiseptics.
4. Mention the applications of barbituriacid, sulphonol, piperadol, hydroxyzine.
5. Reason out the causes for cancer and its treatment.

Subject.Code: 17SEK22
Course Name: FORENSIC CHEMISTRY

Upon completion of this course, the student will be able to:

1. Tell about the basic principles of Forensic Science, identification of physical evidence, Forensic examination of hair, fiber, paints.
2. Know about the examination and identification of drugs, alcohol.
3. Get insight into finger print detection, forensic serology.
4. Understand detecting forgery in bank cheques /draft, detection of gold purity.

Subject.Code: 17NMK2
Course Name: CHEMISTRY IN EVERY DAY LIFE

Upon completion of this course, the student will be able to:

1. Understand the manufacturing techniques of some of the small- scale industrial
2. Trained in preparing sambirani, phenoil, shoe polish, plaster of paris .
3. Start small scale manufacturing unit .

Subject.Code:17K2P
Course Name: SEMI-MICRO QUALITATIVE ANALYSIS AND ORGANIC PREPARATIONS

Upon completion of this course, the student will be able to:

1. Analyze given inorganic mixture qualitatively and report the two cations and two anions by using semi micro quantity.
2. Identify various anions and cations through flame test.
3. Distinguish interfering radicals and follow the procedure of elimination.
4. Practice group separation to identify the cations and affirm by confirmation test.
5. Acquainted with the apparatus setup , explain the theory of reactions in the preparation of following organic compounds:

i. Benzoic acid from methyl benzoate, ii. Salicylic acid from methyl/ethyl salicylate, iii.Osazone from glucose

SEMESTER-III

Subject Code: 17K31
Course Name: ORGANIC AND INORGANIC CHEMISTRY

Upon successful completion of this course, the students will be able to:

1. Recognize the basic practical skills for the synthesis of alkyl halides, aryl halides and aralkyl halides.
2. Understand the evidences, reactivity and mechanism of various nucleophilic elimination and substitution reactions.
3. Recognize and draw constitutional isomers, stereoisomers, including enantiomers and diasteromers, racemic mixture and meso compounds .
4. State the principle resemblances of elements within each main group in particular alkali metals, alkaline earth metals.
5. Know the fundamentals of the chemistry of the main group elements, and important real world applications of many of these species
6. Compare the Chemical reactivity of elements in the group III to VI

SEMESTER-IV

Subject Code : 17K41

Course Name: ORGANIC AND PHYSICAL CHEMISTRY

Upon completion of the course, the students will be able to

1. Describe different classes of alcohols and able to write down structure of phenol and phenoxide ion.
2. Form the fundamental electronic structure and bonding in carbonyl compounds
3. Explain the reactivity of carbonyl compounds with both hard and soft nucleophiles (aldehydes and ketones)
4. Understand the physical properties and chemical constitution of liquids.
5. Know about the characteristics of adsorption and catalysis
6. Understand the concept of activation energy, steady state, and zero, first and second order rate laws.

Subject Code: 17K4P

Course Name: GRAVIMETRIC AND VOLUMETRIC ANALYSIS

Upon completion of the course, the students will be able to

1. Estimate the quantities of metal cautions gravimetrically.
2. Facilitate the learner to make solutions of various molar concentrations.
3. Compute the different types of errors in practical.
4. Calculate titration errors for method evaluation, and perform statistical evaluation of results from classical and instrumental chemical experiments and analyses
5. Know how to engage in safe laboratory practices handling laboratory glassware, equipment, and chemical reagents.

SEMESTER-V

Subject Code: 17K51
Course name: ORGANIC CHEMISTRY

Upon completion of the course, the students will be able to

1. Understand aromatic electrophilic, nucleophilic substitutions and the process of reactions.
2. Identify organic naming reactions and their mechanism.
3. Classify organic nitrogen compounds and compare the basicity of amines.
4. Summarize the preparation, properties of heterocyclic compounds and its uses
5. Define carbohydrates, mutarotaion, epimerization and discuss their structure and configuration.

Subject code: 17K52
Course name: PHYSICAL CHEMISTRY-I

Upon completion of the course, the students will be able to

1. Assess knowledge on importance of thermodynamics, Joule Thomson effect and its applications in real life.
2. Recognize the need for second law of thermodynamics, Nernst heat theorem, absolute entropy of solid, liquid, gas.
3. Define phase, equilibrium, component, degrees of freedom and Gibbs phase rule and interprets the stability regions in one component, two component, congruent melting, incongruent melting phase diagrams.
4. Describe the effect solute concentration on various properties (vapour pressure, boiling point, freezing point and osmotic pressure)
5. Identify the point group, order of the group in molecules, construct character table for C_2V point group

Subject Code: 17KE5A
Course name: INORGANIC AND ANALYTICAL CHEMISTRY

Upon completion of the course, the students will be able to

1. Comment on behavior of halogen compounds, peculiarities of fluorine, inter halogen compounds and their structure.
2. Explain the extraction process of titanium, molybdenum, tungsten and get insight into their compounds.
3. Understand the characteristics of lanthanides and actinides and its applications
4. Know the properties of non-aqueous solvents and inorganic polymers.
5. Develop accuracy and precision in doing experiments, understands the different types of errors and methods for minimizing errors.
6. Describe the principles of thermo gravimetric analysis, differential thermal analysis which is used to find the stability of compounds.

Subject Code: 17SEK51
Course name: CHEMISTRY OF BIOMOLECULES

Upon completion of the course, the students will be able to

1. Discuss the chemistry of biomolecules: Amino acids, proteins, nucleic acids
2. Understand the functions of nucleotide, DNA, RNA and distinguish DNA and RNA structures.
3. Categorize the functions of hormones and vitamins and hormones .
4. Summarize enzyme activity and its mechanism
5. Determine saponification value, iodine value of oil.

SEMESTER-VI

Subject Code: 17K61

Course name: ORGANIC CHEMISTRY AND SPECTROSCOPY

Upon completion of the course, the students will be able to

1. Outline the preparation , applications of active methylene compounds and dyes.
2. Apprehend the instrumentation of column , thin layer, paper chromatography
3. State Bayer strain theory, and its modification also discuss conformations of ethane, butane, 1,2-dichloroethane, cyclohexane, methyl cyclohexane
4. Label the various molecular rearrangements by understanding its mechanism.
5. Distinguish tautomerism and resonance.
6. Analyze the extraction method , elucidate the structure of alkaloids and terpenoids.
7. Calculate λ_{max} values for conjugated dienes and α,β-unsaturated carbonyl compounds.
8. Tell about finger print region, spin-spin coupling , coupling constant, Pascal's triangle.

Subject Code: 17K62
Course name: PHYSICAL CHEMISTRY –II

Upon completion of the course, the students will be able to

1. Use the Nernst equation to calculate cell potential.
2. Describe the functions of fuelcells and batteries.
3. Understand the laws of photochemistry, quantum yield and differentiate phosphorescence and fluorescence process.
4. Enumerate the postulates of quantum mechanics
5. Apply Schrodinger wave equation to particle in 1D and 3D box.
6. Elaborate on rotational spectroscopy of diatomic molecules, identify modes of vibration of polyatomic molecules in IR spectroscopy and understand the rule of mutual exclusion principle in Raman spectroscopy.

Subject Code: 17KE6A
Course name: INORGANIC AND APPLICATIONS OF COMPUTER IN CHEMISTRY

Upon completion of the course, the students will be able to

1. Understand Nomenclature, EAN rule of coordination complexes and applications of chelated complexes in analytical chemistry.
2. Calculate crystal field splitting energy, magnetic moments of transition elements.
3. Compare VBT and CFT , explain MOT of octahedral complexes.
4. Explain the role of metal ions in biological systems, functions of haemoglobin, myoglobin, chlorophyll.
5. Solve the chemistry problems with the use of C-language.
6. Represent and manipulate 2D, 3D- molecular structure using cheminformatics.

Subject Code: 17SEK61
Course name: GREEN AND NANO CHEMISTRY

Upon completion of the course, the students will be able to

1. Understand the 12 principles of green chemistry.
2. Design green synthesis using appropriate materials ,catalysts & green solvents to improve the sustainability of the product.
3. Brief study on applications of ultrasound and microwave in organic synthesis.
4. Outline the synthesize of nanoparticles, nanosized semiconductors, carbides, and their applications in real world.
5. Create an appreciation of how the practice of nanochemistry enhance competitiveness, innovation and faster time to market.

Subject Code: 17K61P
Course name: ORGANIC ANALYSIS & ESTIMATION

Upon completion of the course, the students will be able to

1. Analyze organic compounds systematically
2. Identify of a compound as to belong to a particular class of compounds and confirm it by preparing a suitable derivative.
2. Distinguish the reactions of various functional groups.
3. Understand the theory behind the reactions of estimation of aniline and phenol

Subject Code: 17K62P
Course name: PHYSICAL CHEMISTRY

Upon completion of the course, the students will be able to

1. Determine molecular weights by transition temperature method, Rast's macro method.
2. Construct phase diagram and determine eutectic composition and eutectic temperature.
3. Determine the miscibility temperature of phenol-water system.
4. Prepare the solutions of desired strength and buffer mixtures.
5. Demonstrate conductometric, potentiometric, colorimetric, and pH titrations.

ALLIED CHEMISTRY-I

U.G.

ANCILLARY CHEMISTRY (FOR B.SC . N&D)

SEMESTER-III

Subject.Code: 17AKN3
Course Name: BIO CHEMISTRY

Course outcomes

Upon completion of this module, the student will be able to:

1. Classify aminoacids and proteins.
2. Differentiate between vitamins and hormones.
3. Demonstrate the concepts of structure, replication of DNA, RNA.
4. Illustrate the role of enzyme activities and its mechanism.
5. Analyse the fats using saponification value, iodine value, Reichert-Meisel value.

SEMESTER - IV

Subject.Code: 17AKN4

Course Name: ENVIRONMENTAL AND ORGANIC CHEMISTRY

Upon completion of this module, the student will be able to:

1. Define, theories and disadvantages of corrosion, how to prevent corrosion.
2. Understand and identified the dangerously toxic solids, liquids and gases ,explain
3. the biochemical effect of toxic metals in man and children.
4. Acquaint knowledge on anthropogenic sources of radiation , protection from radiation.
5. Compare and inter conversion between glucose and fructose.
6. Enumerate the preparation and applications of azo, nitro dyes.

Subject Code: 17AKN4P
Course Name: QUALITATIVE ANALYSIS

Upon completion of the course, the students will be able to

1. Recognize the basic practical skills for the analysis of inorganic compounds
2. Inculcate the principle of qualitative analysis and eliminate the interfering radical.
3. Be skilful in identifying the simple salt containing one cation and anion.

SEMESTER- V

Subject code : 17AKN5

Course Name: APPLIED CHEMISTRY

Upon completion of the course, the students will be able to

1. Study the water management.
2. Gain basic knowledge on natural, synthetic rubber, plastics and resins
3. Study the manufacture of cement and glass by modern methods
4. Understand the function of paints and pigments.
5. Know the different plant nutrients, their functions and deficiency symptoms.
6. Identify the problematic soil and recommend a method for their reclamation.

SEMESTER- VI

Subject Code : 17AKN6

Course Name: APPLIED AND MEDICINAL CHEMISTRY

Upon completion of the course, the students will be able to

1. Study the manufacture of Soap , Detergents and paper by modern methods.
2. Know about process of dyeing leather, use of mordants.
3. Acquire knowledge about the properties and applications of colloids.
4. Know the applications of anaesthetics, analgesics, antipyretics, antibiotics.

Subject Code: 17AKN6P
Course Name: VOLUMETRIC ANALYSIS

Upon completion of the course, the students will be able to

1. Perform double titrations for simple acid - base and redox titrations skilfully.
2. Identify different types of errors in quantitative analysis.
3. Calculate titration errors for method evaluation, and perform statistical evaluation of results from classical and instrumental chemical experiments and analyses
4. Make scientific reports from chemical experiments and present the results in a transparent manner.

ALLIED CHEMISTRY-I

U.G.

ANCILLARY CHEMISTRY (FOR B.SC., PHYSICS)

SEMESTER- III

Subject code: 17AKP3

Course Name: PHYSICAL CHEMISTRY

Upon completion of the course, the students will be able to

1. Understand the symmetry aspects in chemical systems
2. Comprehend the importance of point group and its classification
3. Apprehend the basic concepts of crystallography
4. Write down the laws of photochemistry and quantum yield.
5. Explain radiative and non radiative processes using Jablonsky diagram.
6. Get insight into the basic laws governing the behavior of gases

SEMESTER - IV

Subject code: 17AKP4

Course Name: ORGANIC AND PHYSICAL CHEMISTRY

Upon completion of the course, the students will be able to

1. Comprehend the preparation, properties, structure and importance of carbohydrates
2. Understand the fundamental properties and reactivity of biologically important molecules.
3. Understand the properties of ideal and non ideal solutions, the basic concepts of electrochemistry and its applications.
4. Construct the different types of electrochemical cells and batteries

Subject Code: 17AKP4P
Course Name: QUALITATIVE ANALYSIS

Upon completion of the course, the students will be able to

1. Recognize the basic practical skills for the analysis of inorganic compounds
2. Inculcate the principle of qualitative analysis and eliminate the interfering radical.
3. Develop skill in identifying the simple salt containing one cation and anion.

SEMESTER-V

Subject code: 17AKP5

Course Name: INORGANIC, PHYSICAL AND MEDICINAL CHEMISTRY

Upon completion of the course, the students will be able to

1. Apply the fundamental principles of chemical periodicity
2. Learn and analyse the bonding characteristics in compounds
3. Analyse the properties of different states of colloidal system
4. Discuss catalytic cracking of petroleum and reforming of petrol
5. Outline the procedure for synthesis of biodiesel
6. Know the various pharmaceutical drugs, their application and synthesis

SEMESTER- VI

Subject code: 17AKP6

Course Name: ANALYTICAL AND INORGANIC CHEMISTRY

Upon completion of the course, the students will be able to

1. Apply analytical techniques in quantitative measurements
2. Appreciate the basic concepts of acid - base reactivity.
3. Classify the various metallurgical operations.
4. Give an extended knowledge about chromatographic techniques
5. Basic knowledge of nuclear structure, stable and unstable atomic nuclei, nuclear reactions and different modes of radioactive decay and also methods for measurements of radioactivity.
6. Develop skills in handling and measurement of radioactive material

Subject Code: 17AKP6P
Course Name: VOLUMETRIC ANALYSIS

Upon completion of the course, the students will be able to

1. Perform double titrations for simple acid –base and redox reactions skillfully.
2. Identify different types of errors in quantitative analysis.
3. Calculate titration errors for method evaluation, and perform statistical evaluation of results from classical and instrumental chemical experiments and analysis.
4. Make scientific reports from chemical experiments and present the results in a transparent manner.

DEPARTMENT OF MATHEMATICS

P.G.

DEPARTMENT OF MATHEMATICS

Programme Code: PM **Programme Name: M.Sc. Mathematics**

Programme Outcomes

1. After completing 2 years of M.Sc., program, students obtain knowledge in pure and allied Mathematics.
2. The Mathematical curriculum offers number of practical exposures which equips the students to face the modern challenges in Mathematics.
3. The PG students after the completion of the course will gain knowledge in preparing themselves for CSIR-NET / SET examination.

Programme Specific Outcomes

1. Students enable to apply the concept of statistics, Operation Research and Numerical Analysis in real life problems.
2. Number theory, Fuzzy sets and Fuzzy logic enable the students to face the real time applications.
3. To assimilate complex mathematical idea and arguments.
4. To improve own learning and performance.

Course Outcomes

SEMESTER - I

Subject Code: 17PM11
Course Name: ALGEBRA

Upon the Completion of the course, the students will be able to

1. Understand & Develop a basic concept of Groups, sylow's theorem, Illustrate the finite abelian group.
2. Analyse Groups and its properties, Jordan Holder theorem.
3. Describe the Characteristics of a ring and Understand the concepts of Dual space and modules.

Subject Code: 17PM12
Course Name: ANALYSIS

Upon the completion of the course, the students will be able to,

1. Learn the basic ideas of real and study the properties of functions, uniform convergence with continuity, integration and differentiation.
2. Appreciate how abstract ideas and rigorous methods in exponential and logarithmic functions can be applied to important practical problems.
3. Calculate an insight into Mean value theorem, L' Hospitals rule, Taylors theorem, Stone weierstrass theorem and stokes theorem.

Subject Code: 17PM13
Course Name: DIFFERENTIAL EQUATION

Upon the completion of the course, the students will be able to

1. Analyse and Evaluate the Homogenous equation, Non-Homogenous equation and Legendre equation.
2. Describe the Euler equation, Bessel equation and The Lipschitz condition.
3. Formulate the partial differential equations and find cauchy's problem for first order equation, cauchy's method of characteristics, Charpit's method and The jacobi's method

Subject Code: 17PM14
Course Name: DIFFERENTIAL GEOMETRY
Upon the completion of the course, the students will be able to

1. Describe the behavior related to space curves ,tangent , normal ,and binormal of a Curve.
2. Classify the metric space and local intrinsic properties of a surface
3. Understand and write mathematical proofs using formal mathematical reasoning.

Subject Code: 17PME1A

Course Name: NUMBER THEORY

Upon the completion of the course, the students will be able to

1. Gain knowledge and critical understanding of the well-established principles within Number Theory.
2. Demonstrate the capability to use a range of established techniques and a reasonable level of skill in calculation and manipulation of the material to solve problems in the following areas: integers, prime numbers, congruence, arithmetic functions, quadratic residues, Diophantine, Equations.
3. Apply the concepts and principles in Number Theory in well-defined contexts beyond those in which they were first studied, showing the ability to evaluate critically the appropriateness of different tools and techniques.

Subject Code: 17PME1B

Course Name: VISUAL BASIC

Upon the completion of the course, the students will be able to

1. Explain the concepts of Windows programming.
2. Develop program using Visual Basic and develop program using VC++.
3. Develop real time applications using VB and VC++

SEMESTER - II

Subject Code: 17PM21

Course Name: ADVANCED ALGEBRA

Upon the completion of the course, the students will be able to

1. Gain knowledge on basic concepts of expansion fields and polynomials and Describe roots, the elements of Galois theory and solvability by radicals.
2. Determine linear transformations and classify the canonical forms.
3. Gain knowledge on Trace and Transpose, Determinants and Hermition.

Subject Code: 17PM22

Course Name: MEASURE AND INTEGRATION

Upon the completion of the course, the students will be able to

1. Gain knowledge on definition of basic concept in Measurable sets.
2. Understand the Construction of Product Measures and the properties of L^p Space.
3. Construct the inequalities of Holder's and Radon – Nikodym theorem.

Subject Code: 17PM23

Course Name: GRAPH THEORY WITH APPLICATIONS

Upon the completion of the course, the students will be able to,

1. Classify precise and accurate mathematical definition of objects in graph theory.
2. Describe connectivity, blocks, Euler Tours – Hamiltonian cycles.
3. Illustrate fundamentals of Directed graphs, cuts, network flows & graphs.

Subject Code: 17PM24

Course Name: STATISTICS

Upon the completion of the course, the students will be able to

1. Analyze discrete and continuous probability distribution.
2. Understand Binomial outcome and compute probability of getting X successes in N trials
3. Apply different distribution to simple practical problems

Subject Code: 17PME2A

Course Name: NUMERICAL METHODS

Upon the completion of the course, the students will be able to

1. Learn the difference between Accuracy and Precision and types of errors and Finding Roots using Graphical method, Bisection method and False position method.
2. Solve a fixed point iteration method to obtained true roots and evaluate the True roots using open method: Newton's Rapson method, secant method and multiple Newton Rapson method.
3. Understand the pitfalls of Gauss Elimination Method and Solve a Linear System of equation using Gauss Jordan and Gauss Seidel method.

Subject Code: 17PME2B

Course Name: AUTOMATA THEORY AND FORMAL LANGUAGES

Upon the completion of the course, the students will be able to

1. Explain and manipulate the different concepts in automata theory and formal languages such as formal proofs, (non-)deterministic automata, regular expressions, regular languages, context-free grammars, context-free languages, Turing machines.
2. Explain the power and the limitations of regular languages and context-free languages.
3. Prove properties of languages, grammars and automata with rigorously formal Mathematical methods; Design automata, regular expressions and context-free grammars accepting or generating a certain language.

SEMESTER - III

Subject Code: 17PM31
Course Name: ADVANCED STATISTICS

Upon the completion of the course, the students will be able to

1. Recognize the binomial, Poisson, geometric, hyper geometric probability distribution and apply it appropriately.
2. Classify discrete, continuous word problems by their distributions.
3. Recognize and understand continuous, uniform, exponential probability density functions in general and central limit theorem problems normal probability distribution and apply it appropriately.

Subject Code: 17PM32
Course Name: COMPLEX ANALYSIS

Upon the completion of the course, the students will be able to

1. Analyze Power series to construct the function.
2. Apply Cauchy integral theorem and also Laurent's series about isolated singularities.
3. Understand a sequence of analytic function and its application.

Subject Code: 17PM33
Course Name: MECHANICS

Upon the completion of the course, the students will to able to

1. Describe behavior related to D'Alembert's Principle, Lagrange's equation and Hamilton's Principle
2. Apply the extension of Hamilton's principle conservation theorem and symmetry properties.
3. Solve reduction to the equivalent one body problem and the equivalent one dimensional problem and To know how to find the solution of the Kepler's problem.

Subject Code: 17PM34
Course Name: TOPOLOGY

Upon the completion of the course, the students will be able to

1. Analyze topology on a space is determined by the collection of open sets, closed sets or by a basis of neighbourhoods at each point.
2. Understand the ideas of connected spaces and compact spaces.

3. Learn a Metric space to be Complete, Urysohn lemma and Metrizable spaces.

Subject Code: 17PME3A

Course Name: FUZZY SETS & LOGIC

Upon the completion of the course, the students will be able to

1. Learn the concepts of crisp sets and fuzzy sets and apply the fuzzy logic in real life application.
2. Analyze difference between crisp set and fuzzy set theory.
3. Know fuzzy relations and understand the concept of Compatibility or tolerance relations, orderings.

Subject Code: 17PME3B

Course Name: STOCHASTIC PROCESSES

Upon the completion of the course, the students will be able to

1. Analyze generating function and classification of distribution
2. Acquire knowledge on Markov chain and non homogeneous chains
3. Understand the poisson process and birth death process

SEMESTER - IV

Subject Code: 17PM41

Course Name: ADVANCED TOPOLOGY

Upon the completion of the course, the students will be able to

1. Gain knowledge of the local compactness.
2. Analyze properties of local finiteness.
3. Understand Baire Spaces, point wise and compact convergent.

Subject Code: 17PM42

Course Name: COMBINATORIAL MATHEMATICS

Upon the completion of the course, the students will be able to

1. Describe the rules of sum and product for permutation and combination with examples.
2. Discuss the enumerators for permutation and Recurrence relation.
3. Derive the theorem for Polya's theory of counting of function and to have the knowledge about orthogonal latin squares.

Subject Code: 17PM43

Course Name: FUNCTIONAL ANALYSIS

Upon the completion of the course, the students will be able to

1. Identify duals of inner product space and Banach space.
2. Understand the notion of orthogonal complement and orthogonal sets.
3. Explain main theorem for normed spaces and topological spaces.

Subject Code: 17PM44

Course Name: OPERATIONS RESEARCH

Upon the completion of the course, the students will be able to

1. Develop mathematical models associated with network flows and related real life applications.
2. Perform Critical analysis of project schedule and analyzing the cost-time trade-offs in the context of a project network.
3. Comprehend several non-linear programming algorithms such as, separable programming algorithm, quadratic programming algorithm, geometric programming algorithm and queuing system

Subject Code: 17PMR

Course Name: PROJECT

Upon the completion of the course, the students will be able to

1. Apply knowledge of Mathematics, in all the fields of learning including higher research and its extensions.
2. Innovate, invent and solve complex mathematical problems using the knowledge of pure and applied mathematics.
3. Explain the knowledge of contemporary issues in the field of Mathematics and applied sciences. Work effectively as an individual, and also as a member or leader in multi-linguistic and multi-disciplinary teams.

Course Outcomes

Programme Code: MC **Programme Name: MCA**

Subject Code: 18MC11
Course Name: MATHEMATICAL FOUNDATION OF COMPUTER APPLICATION

Upon the completion of the course, the students will be able to,

1. Impact knowledge on complexity of algorithms using recurrence relations.
2. Acquire knowledge about functions and strong foundation on circuit analysis.
3. Recognize the concept of trees, connectivity and network flow problems in graph theory.

Subject Code: 18MC31
Course Name: OPTIMIZATION TECHNIQUES

Upon the completion of the course, the students will be able to,

1. Remember the concept of linear programming problem using Simplex Method.
2. Make out the rules of game theory for solving games and summarize the concept of inventory control.
3. Apply the notions of linear programming in solving transportation problems and Assignment Problem.

DEPARTMENT OF INFORMATION TECHNOLOGY P.G.

DEPARTMENT OF INFORMATION TECHNOLOGY

Programme Code: PI **Programme Name: M.Sc. Information Technology**

Programme Outcomes

DEPARTMENT OF INFORMATION TECHNOLOGY-PG

1. Identify, design, and analyze complex computer systems and implement and interpret the results from those systems.
2. Design, implement and evaluate a computer-based system, or process component, to meet the desired needs within the realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
3. Review literature and indulge in research using research based knowledge and methods to design new experiments, analyze, and interpret data to draw valid conclusions.
4. Select and apply current techniques, skills, and tools necessary for computing practice and integrate IT-based solutions into the user environment effectively.
5. Apply contextual knowledge to assess professional, legal, health, social and cultural issues during profession practice.
6. Analyze the local and global impact of computing on individuals, organizations, and society.

Programme Specific Outcomes

1. At the end of the programme, the student should be able to Understand the concepts and applications in the field of Information Technology like Web designing and development, Mobile application development, and Network and communication technologies.
2. Apply the learning from the courses and develop applications for real world problems.
3. Understand the technological developments in the usage of modern design and development tools to analyze and design for a variety of applications.
4. Competent and complete software professional to meet the requirement of corporate world and Industry standard to provide solutions to industry, society and business.
5. Analyst who can apply latest technologies who can analyze and synthesize computing systems through quantitative and qualitative techniques to solve problems in the areas of Information Technology.
6. A thorough and practical expert in the use of state of the art techniques for developing Software based systems.

Course Outcomes

SEMESTER - I

Subject Code: 17PI11
Course Name: COMPUTER ARCHITECTURE

Upon completion of the course, the students will be able to

1. Apply the principles of number system, binary codes and Boolean algebra to minimize logic expressions.
2. Evaluate the different processor architectures and system-level design processes.
3. Grasp the principles of I/O in computer systems, including viable mechanisms for I/O and secondary storage organization.

Subject Code: 17PI12
Course Name: OBJECT ORIENTED PROGRAMMING WITH C++

Upon completion of the course, the students will be able to

1. Explain the top-down and bottom-up programming approach and apply bottom up approach to solve real world problems.
2. Differentiate the static and dynamic binding.
3. Know the concept of inheritance, overloading, constructors and apply real world problems.

Subject Code: 17PI13
Course Name: DATA STRUCTURE AND ALGORITHMS

Upon completion of the course, the students will be able to

1. Choose the appropriate data structure for modeling in the given problem.
2. Define high level of abstraction of various linear and nonlinear data structures.
3. Implement various data structures along with their application.

Subject Code: 17PIE1A
Course Name: DISCRETE MATHEMATICS

Upon completion of the course, the students will be able to

1. Evaluate the foundation for the development of more advanced mathematical concepts.
2. Use appropriate set, function, or relation models for analysis of practical examples and interpretation of the associated operations and terminology in context.
3. Formulate problems precisely, solve the problems, apply formal proof techniques, and explain their reasoning clearly.

Subject Code: 17PIE1B
Course Name: SYSTEM ANALYSIS AND DESIGN

1. Analyze the principles and tools of systems analysis and design.
2. Apprehend the professional and ethical responsibilities of practicing the computer professional including the need for quality.
3. Solve a wide range of problems related to the analysis, design and construction of information systems.

Subject Code: 17PIE1C
Course Name: DIGITAL IMAGE PROCESSING

Upon completion of the course, the students will be able to

1. Review the fundamental concepts of a digital image processing system.
2. Analyze images in the frequency domain using various transforms.
3. Evaluate the techniques for image enhancement and image restoration.

Subject Code: 17PI11P
Course Name: OBJECT ORIENTED PROGRAMMING WITH C++ LAB

Upon completion of the course, the students will be able to

1. Understand key features of the object-oriented programming language such as encapsulation (abstraction), inheritance, and polymorphism.
2. Design and implement object-oriented applications.
3. Analyze problems and implement simple C++ applications using an object-oriented programming approach.

Subject Code: 17PI12P
Course Name: DATA STRUCTURE AND ALGORITHMS LAB

Upon completion of the course, the students will be able to

1. Apply wide knowledge of computing and mathematics to choose the data structures effectively and model the information in a problem.
2. Solve problems by using iterative and recursive methods.
3. Write various operations like searching, sorting, insertion, deletion, traversing etc. on different data structure.

SEMESTER - II

Subject Code: 17PI21

Course Name: RELATIONAL DATABASE MANAGEMENT SYSTEM

Upon completion of the course, the students will be able to

1. Awareness of database management basics and different models that we use for database.
2. Design and architecture of relational model, relational algebra and SQL queries.
3. Implement different form of normalization.

Subject Code: 17PI22
Course Name: THEORY OF COMPUTATION

Upon completion of the course, the students will be able to

1. Understand and construct finite state machines and the equivalent regular expressions.
2. Prove the equivalence of languages described by finite state machines and regular expressions.
3. Construct pushdown automata and the equivalent context free grammars.

Subject Code: 17PI23
Course Name: SYSTEM SOFTWARE AND OPERATING SYSTEM

Upon completion of the course, the students will be able to

1. Understand the different components of system software and intermediate code generation.
2. Identify and estimate process management & thread management strategies along with their different operations.
3. Implement different system calls for various file handling

Subject Code: 17PIE2A
Course Name: COMPILER DESIGN

Upon completion of the course, the students will be able to

1. Understand the major phases of Compilation and Syntax Analysis.
2. Construct the intermediate code representations and generation.
3. Separate the lexical, syntactic and semantic analysis into meaningful phases for a compiler to undertake language translation.

Subject Code: 17PIE2B
Course Name: RESOURCE MANAGEMENT TECHNIQUES

Upon completion of the course, the students will be able to

1. Make use of simplex method to solve optimization problems.
2. Demonstrate the concept of duality to solve Shortest route problem.
3. Evaluate the types of constraints and optimization methods.

Subject Code: 17PIE2C
Course Name: DATA MINING AND WAREHOUSING

Upon completion of the course, the students will be able to

1. Implementation and use of the basic concepts and techniques of Data Mining.
2. Extract knowledge using data mining techniques and adapt new data mining tools.
3. Expand experience of doing independent study and research.

Subject Code: 17PI21P
Course Name: RDBMS LAB

Upon completion of the course, the students will be able to

1. Understand the DDL commands, Primary key and Candidate keys.
2. Apply the various DML commands for retrieval of information.
3. Perform all the Table join operations.

Subject Code: 17PI22P
Course Name: DYNAMIC WEB PROGRAMMING LAB

Upon completion of the course, the students will be able to

1. Create PHP programs that use various PHP library functions, and that manipulate files and directories.
2. Write PHP scripts to handle HTML forms.
3. Writing and executing SQL statements with PHP.

SEMESTER - III

Subject Code: 17PI31
Course Name: ADVANCED SOFTWARE ENGINEERING

Upon completion of the course, the students will be able to

1. Understand and adhere to professional ethical standards in the system development and modification process, especially by accepting responsibility for the consequences of design decisions and design implementations.
2. Design applicable solutions in one or more application domains using software engineering approaches that integrate ethical, social, legal and economic concerns.
3. Deliver quality software products by possessing the leadership skills as an individual or contributing to the team development.

Subject Code: 17PI32
Course Name: ADVANCED JAVA

Upon completion of the course, the students will be able to

1. Learn the Internet Programming, using Java Applets.
2. Apply event handling on AWT components including windows, menus, buttons, checkboxes, text fields and scrollbars.
3. Make a resusable software component, using Java Bean.

Subject Code: 17PIE3A
Course Name: COMPUTER NETWORKS

Upon completion of the course, the students will be able to

1. Show clear understanding of the basic concepts of data communications including the key aspects of networking and their interrelationship, packet switching, circuit switching and cell switching as internal and external operations, physical structures, types, models, and internetworking.
2. Explain networking as it relates to the connection of computers, media, and devices (routing).
3. Demonstrate an understanding of the significance and purpose of protocols and standards and their key elements and use in data communications and networking.

Subject Code: 17PIE3B
Course Name: MOBILE COMPUTING

Upon completion of the course, the students will be able to

1. Understand fundamentals of Mobile Computing Architecture and wireless communications.
2. Analyze security, energy efficiency, mobility, scalability, and their unique characteristics in wireless networks.
3. Apply knowledge of TCP/IP extensions for mobile and wireless networking.

Subject Code: 17PIE3C
Course Name: ARTIFICIAL INTELLIGENCE

Upon completion of the course, the students will be able to

1. Demonstrate the fundamental understanding of the history of artificial intelligence (AI) and its foundations.
2. Apply basic principles of AI in solutions that require problem solving, inference, perception, knowledge representation, and learning.
3. Demonstrate awareness and a fundamental understanding of various applications of AI techniques in intelligent agents, expert systems, and other machine learning models.

Subject Code: 17PI12
Course Name: BIG DATA ANALYTICS

Upon completion of the course, the students will be able to

1. Understand the key issues in big data management and its associated applications in intelligent business.
2. Acquire fundamental enabling techniques and scalable algorithms like Hadoop, Map Reduce and NO SQL in big data analytics.
3. Interpret business models and scientific computing paradigms, and apply software tools for big data analytics.

Subject Code: 17PIE3E
Course Name: CYBER SECURITY

Upon completion of the course, the students will be able to

1. Analyze and evaluate the cyber security needs of an organization.
2. Evaluate how cyber security operations are carried out.
3. Determine and analyze software vulnerabilities and security solutions to reduce the risk of exploitation.

Subject Code: 17PIE3F
Course Name: PATTERN RECOGNITION

Upon completion of the course, the students will be able to

1. Explain and compare a variety of pattern classification, structural pattern recognition, and pattern classifier combination techniques.
2. Apply pattern recognition techniques to real-world problems such as document analysis and recognition.
3. Implement simple pattern classifiers, classifier combinations, and structural pattern recognizers.

Subject Code: 17PI31P
Course Name: ADVANCED JAVA LAB

Upon completion of the course, the students will be able to

1. Apply the concepts of control structures, inheritance, method overriding in Java.
2. Implement the concept of interface, packages, multithreading and applets.
3. Learn the Java programming language in the aspects of designing, coding and implementation.

Subject Code: 17PI32P
Course Name: WEB TECHNOLOGY LAB

Upon completion of the course, the students will be able to

1. Understand the goals and objectives of the .NET Framework. .NET is a revolutionary concept on how software should be developed and deployed.
2. The working knowledge of the C# programming language.
3. Comprehend ADO.NET and develop database applications.

SEMESTER - IV

Subject Code: 17PIPR4
Course Name: PROJECT – VIVA VOCE

Upon completion of the course, the students will be able to

1. Evaluate a sound technical knowledge of their selected project topic.
2. Undertake problem identification, formulation and solution.
3. Demonstrate the knowledge, skills and attitudes of a software engineer.

DEPARTMENT OF

MCA

P.G.

DEPARTMENT OF MCA

Programme Code: MC **Programme Name: MCA**

Programme Outcomes

1. Apply knowledge of computing fundamentals and domain facts. (Local)
2. Identify, formulate and solve complex computing problems reaching substantiated conclusions. (National)
3. Design and evaluate solutions for complex computing problems with appropriate consideration. (Global)
4. Use research-based knowledge and research methods for analysis and interpretation of data, and synthesis of the information to provide valid conclusion. (National)
5. Apply computing, management principles to manage Multidisciplinary projects (Global)
6. Commit to professional ethics and cyber regulations for professional computing practices. (Global)

Programme Specific Outcomes

On completion of the MCA Programme, students will be able to

1. Develop an ability to apply knowledge in the computing discipline (Local)
2. Develop ability to design and conduct experiments, as well as interpret data. (National)
3. Develop ability to use current technologies, skills and models for computing practice (Global)
4. Develop techniques to enhance ability for lifelong learning (Global)
5. Make graduates understand cross cultural, societal, professional, legal and ethical issues prevailing in industry (National)

Course Outcomes

SEMESTER - I

Subject Code: 18MC11

Course Name: MATHEMATICAL FOUNDATION OF COMPUTER APPLICATION

Upon completion of the course, the students will be able to

1. Understand the complexity of computational problems
2. Address any real time problem and improve the working flow of computational models.
3. Solve real time problems using tree and graph algorithms
4. Evaluate Boolean functions and simplify expressions using the properties of Boolean algebra
5. Apply various methods of mathematical proof and communicate solutions in writing.

Subject Code: 18MC12
Course Name: DIGITAL PRINCIPLES & COMPUTER ORGANIZATION

Upon completion of the course, the students will be able to

1. Understand The Processing Of Computer And The Function Of Memory And Its Types
2. Know The Functions And Organization Of Input Output Devices
3. Interpret The Digital Representation Of Data In a Computer System
4. Identify , Understand And Apply Different Number Systems And Codes
5. Understand Computer Arithmetic Formulate And Solve Problems

Subject Code: 18MC13
Course Name: PROGRAMMING IN C

Upon completion of the course, the students will be able to

1. Create algorithms to solve simple programming problems.
2. Design, implement, test and debug programs that use calculations and selections.
3. Design, implement, test and debug programs that use loops and arrays.
4. Design, implement, test and debug programs that use functions.
5. Design, implement, test and debug programs that use arrays for character strings and that use pointers for character strings.

Subject Code: 18MC14
Course Name: RELATIONAL DATABASE MANAGEMENT SYSTEMS

Upon completion of the course, the students will be able to

1. Understand the use of Structured Query Language (SQL)
2. Create E/R models from application descriptions.
3. Apply normalization techniques to standardize the database
4. Design and implement a database system for real time problem
5. Create databases in an RDBMS and enforce data integrity constraints and queries using SQL

Subject Code: 18MC11P
Course Name: PROGRAMMING IN C LAB

Upon completion of the course, the students will be able to

1. Understand and trace the execution of programs written in C language.
2. Write program in C code for an algorithm.
3. Implement programs with pointers and arrays, perform pointer arithmetic, and use the pre-processor.
4. Write programs that perform operations using derived data types.
5. Write a program which copies the contents of one file to another file using command line arguments.

Subject Code: 18MC12P
Course Name: RDBMS LAB

Upon completion of the course, the students will be able to

1. Utilize a data definition language and/or utilities to implement the schema using a DBMS.
2. Use an SQL interface of a multi-user relational DBMS package to create, secure, populate, maintain, and query a database.
3. Formulate query, using SQL, solutions to a broad range of query and data update problems..
4. Create a desktop database package to populate, maintain, and query a database.
5. Demonstrate a rudimentary understanding of programmatic interfaces to a database and be able to use the basic functions of one such interface.

SEMESTER – II

Subject Code: 18MC21
Course Name: OBJECT ORIENTED PROGRAMMING USING C++

Upon completion of the course, the students will be able to

1. Understand the difference between the top-down and bottom-up approach
2. Describe the object-oriented programming approach in connection with C++
3. Utilize the concepts of object-oriented programming
4. Illustrate the process of data file manipulations using C++
5. Apply virtual and pure virtual function & complex programming situations

Subject Code: 18MC22
Course Name: DATA STRUCTURES AND ALGORITHMS

Upon completion of the course, the students will be able to

1. Describe how Arrays, Records, Linked structures, Stacks ,Queues concepts can be implemented.
2. Analyze the concept of Binary Tree , Binary Search Tree and Graph Traversal.
3. Compare and contrast the benefits of dynamic and static data structures implementations
4. Apply the concept of recursion with example and describe how it is implemented using Stack
5. Design and implement an appropriate hashing function for an application.

Subject Code: 18MC23
Course Name: OPERATING SYSTEMS

Upon completion of the course, the students will be able to

1. Identify the concept of System Calls and various types of Processor.
2. Apply the basic structure of Operating Systems.
3. Understand concurrent Process , Thread , Memory Management and Deadlocks
4. Apply concept of creating new process from parent process.
5. Acquire Knowledge in Scheduling and File System.

Subject Code: 18MC24
Course Name: COMPUTER GRAPHICS & MULTIMEDIA

Upon completion of the course, the students will be able to

1. Understand the various graphics systems and applications of computer graphics.
2. Discuss the various algorithms for scan conversion and filling of basic objects and their comparative analysis.
3. Use of geometric transformations on graphics objects and their application in composite form.
4. Extract scene with different clipping methods and its transformation to graphics display device.
5. Explore projections and visible surface detection techniques for display of 3D scene on 2D screen.

Subject Code: 18MC21P
Course Name: DATA STRUCTURES & ALGORITHMS USING C++ LAB

Upon completion of the course, the students will be able to

1. Understand the linear and non-linear data structures, Sorting and searching operations,
2. Examine the performance of Stack, Queue, and Lists.
3. Analyze the performance of Trees, Graphs, Searching and Sorting techniques.
4. Implement all the applications of Data structures in a high-level language.
5. Design and apply appropriate data structures for solving computing problems

Subject Code: 18MC22P
Course Name: COMPUTER GRAPHICS MULTIMEDIA LAB

Upon completion of the course, the students will be able to

1. Understand the basic concepts of computer graphics
2. Design the scan conversion problems using C++ programming.
3. Apply clipping and filling techniques for modifying an object.
4. Evaluate the concepts of various geometric transformation of objects in 2D and 3D.
5. Comprehend the practical implementation of modeling, rendering, viewing of objects in 2D

SEMESTER - III

Subject Code: 18MC31
Course Name: OPTIMIZATION TECHNIQUES

Upon completion of the course, the students will be able to

1. Formulate and solve Mathematical Models for the real world problems.
2. Understand the Transportation Model, Traveling Salesman and able to find Optimal Solution.
3. Interpret the Major Limitations and Capabilities of deterministic Operations Research Modeling as Applied to Problems in industry or government.
4. Deal with real world problems in Network Analysis, Project Management, for their Optimal Solutions
5. Solve the various Non- Linear Programming Problems.

Subject Code: 18MC32
Course Name: PROGRAMMING IN JAVA

Upon completion of the course, the students will be able to

1. Understand the use of OOPs concepts.
2. Solve real world problems using OOPs techniques.
3. Understand the use of Abstraction, Packages and Interface in Java.
4. Develop and understand Exception handling, Multithreaded applications with synchronization.
5. Design GUI based applications and develop applets for web applications.

Subject Code: 18MC33
Course Name: DATA COMMUNICATIONS AND NETWORKING
Upon completion of the course, the students will be able to

1. Understand basic computer network technology.
2. Explain Data Communications System and its components.
3. Identify the different types of network topologies and protocols.
4. Enumerate the layers of the OSI model and TCP/IP. Explain the functions of each layer.
5. Differentiate the types of network devices and their functions within a network.

Subject Code: 18MC34
Course Name: SOFTWARE ENGINEERING

Upon completion of the course, the students will be able to

1. Understand the analysis and design of complex systems.
2. Apply software engineering principles and techniques to develop, maintain and evaluate large-scale software systems.
3. Produce efficient, reliable, robust and cost-effective software solutions.
4. Perform independent research and analysis and to work as an effective member or leader of software engineering teams.
5. Manage time, processes and resources effectively by prioritizing competing demands to Achieve personal and team goals

Subject Code: 18MC31P
Course Name: PROGRAMMING IN JAVA LAB

Upon completion of the course, the students will be able to

1. Implement Object Oriented programming concept using basic syntaxes of control Structures, Strings and Function for developing skills of logic building activity.
2. Identify Classes, Objects, Members of a Class and the relationships among them .
3. Demonstrates how to achieve reusability using inheritance, interfaces and packages and describes faster application development can be achieved and the use of different exception handling mechanisms.
4. Describe common abstract user interface components to design GUI in Java using Applet & AWT along with response to events
5. Design and develop complex Graphical user interfaces using principal Java Swing classes based on MVC architecture

Subject Code: 18MC32P
Course Name: LINUX PROGRAMMING LAB

Upon completion of the course, the students will be able to

1. Implement the basic commands of Linux Operating System and can write shell scripts
2. Apply and change the Ownership and file Permissions using advance Linux Commands.
3. Create File Systems and Directories and operate them .
4 Set Processes Background and foreground Etc..by Fork() system Calls.
5. Evaluate Shared Memory Segments, Pipes ,Message Queues and can exercise Interprocess Communication.

SEMESTER - IV

Subject Code: 18MC41
Course Name: OPEN SOURCE TECHNOLOGY

Upon completion of the course, the students will be able to

1. Understand the concept of server-side scripting, variables, control structures in PHP.
2. To study the details of functions, string handling and arrays in PHP.
3. Illustrate the concept of number handling, learning sql and data base administration and design.
4. To perform database queries, integrating web forms and databases
5. Write session control PHP code for a website and coding for cookies.

Subject Code: 18MC42
Course Name: MOBILE COMPUTING

Upon completion of the course, the students will be able to

1. Understand cellular concepts like frequency reuse, hand-off and Interference.
2. Apply knowledge of reflection, diffraction and scattering to calculate link budget using path loss models.
3. Present the importance of Equalization and different diversity techniques.
4. Analyze the concepts of GSM. , channels, coding techniques, data transmission, services.
5. Apply the fundamentals of CDMA., channels, coding techniques, data transmission, services.

Subject Code: 18MC43
Course Name: PRINCIPLES OF COMPILER DESIGN

Upon completion of the course, the students will be able to

1. Acquire knowledge about various system software and role in programming environment.
2. Apply lexical analyzer using NFA and DFA.
3. Implement various parsing techniques.
4. Understand the basic issues of Code optimization, Register allocation and Assignment methods their limitations and benefits.
5. Create a Compiler for a small programming language.

Subject Code: 18MCE4A
Course Name: CLOUD COMPUTING

Upon completion of the course, the students will be able to

1. Define Cloud Computing and memorize the different Cloud service and deployment models
2. Describe the importance of virtualization along with their technologies.
3. Use and examine different cloud computing services and analyze the components of open stack &and Google Cloud platform and understand Mobile cloud Computing .
4. Understand components of Amazon web service.
5. Design and develop backup strategies for cloud data based on features.

Subject Code: 18MCE4B
Course Name: SOFT COMPUTING

Upon completion of the course, the students will be able to

1. Comprehend the fuzzy logic and the concept of fuzziness involved in various systems and fuzzy set theory.
2. Understand the concepts of fuzzy sets, knowledge representation using fuzzy rules, approximate reasoning, fuzzy inference systems, and fuzzy logic
3. Apply the fundamental theory and concepts of neural networks, Identify different neural network architectures, algorithms, applications and their limitations
4. Infer appropriate learning rules for each of the architectures and learn several neural network paradigms and its applications
5. Reveal different applications of these models to solve engineering and other problems.

Subject Code: 18MCE4
Course Name: ENTERPRISE RESOURCE PLANNING

Upon completion of the course, the students will be able to
1. Make basic use of Enterprise software, and its role in integrating business functions
2. Analyze the strategic options for ERP identification and adoption.
3. Understand and apply the concepts of ERP Manufacturing Perspective and ERP Modules.
4. Design the ERP implementation strategies.
5. Create re engineered business processes for successful ERP implementation

Subject Code: 18MC41P
Course Name: OPEN SOURCE TECHNOLOGY LAB

Upon completion of the course, the students will be able to

1. Implement various applications using build systems
2 .Understand the installation of various packages in open source operating systems
3. Explore different open source technology like Linux, PHP & MySQL with different packages.
4. Execute Linux commands for programming.
5. Write PHP programs with MySQL connection

Subject Code: 18MC42P
Course Name: MOBILE COMPUTING LAB

Upon completion of the course, the students will be able to

1. Experiment on Integrated development environment for Android application development.
2. Design and Implement User Interfaces and Layouts of Android app.
3. Use Intents for activity and broadcasting data in Android app.
4. Design and Implement Database Application and content providers.
5. Develop Android App with security feature

SEMESTER – V

Subject Code: 18MC51
Course Name: WEB TECHNOLOGIES

Upon completion of the course, the students will be able to

1. Develop a dynamic web page by the use of JavaScript and DHTML.
2. Create simple websites using HTML, JavaScript and CSS.
3. Write a well formed and valid XML documents
4. Develop server-side Java application called JSP to catch form data sent from from client and store it on database
5. Programming web pages with JavaScript

Subject Code: 18MC52
Course Name: CRYPTOGRAPHY& NETWORK SECURITY

Upon completion of the course, the students will be able to

1. Provide security of the data over the network.
2. Do research in the emerging areas of cryptography and network security.
3. Implement various networking protocols.
4. Protect any network from the threats in the world.
5. Analyze and implement public key algorithms like RSA, Diffie-Hellman Key Exchange mechanism, the message digest of a text using the SHA-1 algorithm.

Subject Code: 18MC53
Course Name: DATA MINING & DATA WAREHOUSING

Upon completion of the course, the students will be able to
1. Understand various steps in KDD Process ,major issues in Data Mining
2. Preprocess the data for mining applications
3. Apply the association rules for mining the data
4. Design and deploy appropriate classification techniques
5. Cluster the high dimensional data for better organization of the data

Subject Code: 18MCE5A
Course Name: BIG DATA ANALYTICS

Upon completion of the course, the students will be able to

1. Understand the key issues in big data management and its associated applications in intelligent business and scientific computing.
2. Acquire fundamental enabling techniques and scalable algorithms like Hadoop, Map Reduce and NO SQL in Big Data analytics
3. Interpret business models and scientific computing paradigms, and apply software tools for Big Data analytics.
4. Achieve adequate perspectives of Big Data analytics in various applications like Recommender Systems, social media applications etc.
5. Demonstrate the understanding of storing and managing Big Data using HDFS, Pig and Hive tools

Subject Code: 18MCE5B
Course Name: DIGITAL IMAGE PROCESSING

Upon completion of the course, the students will be able to

1. Review the fundamental concepts of digital image processing system.
2. Analyze images in the frequency domain using various transforms.
3. Evaluate the techniques for image enhancement and image restoration.
4. Categorize various compression techniques and interpret Image compression standards.
5. Interpret image segmentation and representation techniques.

Subject Code: 18MCE5C
Course Name: INTERNET OF THINGS

Upon completion of the course, the students will be able to
1. Identify the requirements for the real world problems.
2. Conduct a survey of several available literatures in the preferred field of study.
3. Study and enhance software/ hardware skills.
4. To report and present the findings of the study conducted in the preferred domain.
5. Demonstrate an ability to work in teams and manage the conduct of the research study.

Subject Code: 18MC51P
Course Name: WEB TECHNOLOGY LAB

Upon completion of the course, the students will be able to
1. Develop a dynamic webpage by the use of JavaScript and DHTML
2. Write a Well Formed / Valid XML Document.
3. Format and Languages used in model web pages such as HTML, XHTML, CSS and XML.
4. Design a Serve-Side Java Application called Servlet to catch form data sent from Client, Process it and store it on database.
5. Compose a Server-Side Java aapplication called JSP to catch form Data sent from Client and store it on Database.

Subject Code: 18MC52P
Course Name: DATA MINING & DATA WAREHOUSING LAB USING OPEN SOURCE TOOLS

Upon completion of the course, the students will be able to

1. Understand the functionality of the various data mining and data warehousing component.
2. Apply the various data mining and data warehousing models .
3. Explain the analyzing techniques of various data.
4. Describe different methodologies used in data mining and data ware housing.
5. Compare different approaches of data ware housing and data mining with various technologies.

SEMESTER – VI

Subject Code: 18MCPR6
Course Name: PROJECT - VIVA VOCE

Upon completion of the course, the students will be able to

1. Understand and analyse the project.
2. Apply the knowledge of latest trends in design/simulation and fabrication of the project.
3. Relate the ideas while executing the project.
4. Conduct test to examine the performance of the project.
5. Prepare Project Report and power point presentation for seminar in team to enhance his writing skills and oral communication.

DEPARTMENT OF COMMERCE

P.G.

DEPARTMENT OF COMMERCE

Programme Code: PC **Programme Name:M.Com(Computer Applications)**

Programme Outcomes

1. Complete Teaching Education Course like B.Ed. Eligibility Test, NET and SET successfully.
2. Acquire skill to select teaching and research as a Profession.
3. Became Project Manager, Web Designer and HR Leader in Multinational Companies.
4. To gain knowledge that helps to face various competitive examination.

Programme Specific Outcomes

On completion of M.Com (CA) Commerce Programme, the students would be able to

1. To become experts in accounting methodology and enhance professionalism through innovative practices, to be tactful in facing unforeseen demands and changes in situational roles in industry and academics.
2. To gain through subject knowledge from practical experiences, industrial learning and internship.
3. To develop entrepreneurial skills, groups activities, spirit of coordination shaping up their professionalism.
4. To adopt innovative opportunities, latest technologies that helps to develop new business.
5. To enhance informative and expressive computer knowledge that helps them to face various competitive examination.

Course Outcomes

SEMESTER - I

Subject Code: 17PC11

Course Name: QUANTITATIVE TECHNIQUES

Upon completion of the course, the students will be able to

1. To help the students in determining the degree of relationship between two or more variable through correlation and regression.
2. Calculate the probabilities that gives the tools to quantify the uncertainty of events and reason in a principled manner.
3. To give practice of evaluating and analyzing collected data samples in order to make business decision.
4. To understand how to use an F-test and ANOVA for the purpose of conducting analytical comparisons.
5. To experience the students to evaluate the test of independence and goodness of fit from sample data for future research.

Subject Code: 17PC12
Course Name: MARKETING MANAGEMENT

Upon completion of the course, the students will be able to

1. Describe the concepts and consumer behavior of marketing.
2. To know the pricing policies and strategies in marketing.
3. Get knowledge in recent trends in marketing.
4. Understand the concepts of salesmanship and advertising.

Subject Code: 17PC13
Course Name: BUSINESS MANAGEMENT

Upon completion of the course, the students will be able to

1. To know the development of management thought.
2. Apply suitable plan and take correct decision in business management.
3. Understand the functions of organization in management.
4. Describe the functions of staffing and theories of motivation.

Subject Code: 17PC14
Course Name: INTERNET AND WEB TECHNOLOGIES

Upon completion of the course, the students will be able to

1. History and development of the World Wide Web and associated technologies.
2. The client-server architecture of the World Wide Web and its communication protocol HTTP/HTTPS.
3. Analyze a web page and identify its elements and attributes.
4. Create web pages using XHTML and Cascading Style Sheets.
5. Build dynamic web pages using JavaScript (Client side programming).

Subject Code: 17PC1P
Course Name: WEB TECHNOLOGY LAB

Upon completion of the course, the students will be able to

1. Describe the Heading and Font tags in Web page.
2. Identify Bio data from with table.
3. Prepare the Webpage designing with Anchor Tag.
4. Calculate the factorial number using JavaScript and VBScript.
5. Categorize the Text field, Radio button and Combo box.

SEMESTER – II

Subject Code: 17PC21
Course Name: OPERATION RESEARCH

Upon completion of the course, the students will be able to

1. Identify and develop operational research models.
2. Understand the mathematical tools that are needed to sole optimization problem.
3. Distinguish a game situation from a pure individual's decision problem.
4. Define and explain basic concepts in descriptive statistics and probability theory.
5. Use CPM and PERT techniques to plan schedule and control project activities.

Subject Code: 17PC22
Course Name: COST AND MANAGEMENT ACCOUNTING

Upon completion of the course, the students will be able to

1. Prepare the accounting for cost sheet.
2. Gain the knowledge an application of processing.
3. Prepare cash flow and fund flow statement under AS3.
4. Understand the application of marginal costing and standard costing techniques.

Subject Code: 17PCE2A/17PCE2B
Course Name: HUMAN RESOURCE MANAGEMENT/RETAIL MARKETING

Upon completion of the course, the students will be able to

1. Understand the Recruitment and Selection Process in management.
2. To know the methods of training.
3. Describe the concepts of Performance Appraisal Technique.
4. To know the functions of Trade Union.
5. To understand the various system of Human Resource Management.

Subject Code: 17PCE2B
Course Name: RETAIL MARKETING

Upon completion of the course, the students will be able to

1. Describe the system of Consumerism in Retail marketing.
2. Understand the CRM Functions.
3. To learn the Service Operation and Marketing Channel System concepts in Retail Marketing

Subject Code: 17PC23
Course Name: OBJECT ORIENTED PROGRAMMING WITH C++

Upon completion of the course, the students will be able to

1. Understand the difference between the top-down and bottom-up approach.
2. Describe the object-oriented programming approach in connection with C++.
3. Apply the concepts of object-oriented programming.
4. Illustrate the process of data file manipulations using C++.
5. Apply virtual and pure virtual function & complex programming situations,

Subject Code: 17PC2P
Course Name: PROGRAMMING IN C++ LAB

Upon completion of the course, the students will be able to

1. Describe the C++ program illustrating the variables.
2. Identify the Inline Function in C++.
3. Prepare to calculate the number manipulation.
4. Understand the types of Inheritance.
5. Categorize the Array Elements.

SEMESTER - III

Subject Code: 17PC31
Course Name: ADVANCE CORPORATE ACCOUNTING

Upon completion of the course, the students will be able to

1. Enable the students to understand about amalgamation absorption and external reconstruction.
2. To make them aware about accounting procedures of banking companies and insurance companies.
3. Enable the students to gain an idea of liquidation of companies.
4. To introduce and develop knowledge of holding companies and subsidiary companies accounts.

Subject Code: 17PC32
Course Name: DIRECT TAX

Upon completion of the course, the students will be able to

1. Define Income tax act Preparing Residential status and various head of income calculating Income from salary.
2. Prepare II and III head of income from House property and profit and loss a/c.
3. To explain the head of capital gain and Income from other hand.
4. To explain all set off and deduction of gross total income.
5. To know the Assessment of income from individual.
6. To know the Assessment of wealth tax.

Subject Code: 17PCE3A
Course Name: FINANCIAL MANAGEMENT

Upon completion of the course, the students will be able to

1. Analyze financial statement by using standard financial ratios of liquidity, activity, debt, profitability and market values.
2. Apply techniques to project financial statement for forecasting long – term financial needs.
3. Apply future values, present values concepts to single sums, mixed stream and annuities.
4. Apply time value of money, risk and return concepts.
5. Identify relevant cash flows for capital budgeting projects and apply various methods to analyze projects.
6. Explain the concept of leverage, the benefits and the costs associated with department financier.
7. Identify the various long term sources of funds for a firm.

Subject Code: 17PC33
Course Name: DATABASE MANAGEMENT SYSTEM

Upon completion of the course, the students will be able to

1. Identify the overview of Database Systems.
2. An ability to design database using ER Model.
3. Familiarize Integrity constraints, Relational and Logical database design.
4. Able to write SQL commands using basic queries, Triggers and Aggregate operators.
5. Understand the deep knowledge of storing data disks and files in DBMS.

Subject Code: 17PC3P
Course Name: ORACLE LAB

Upon completion of the course, the students will be able to

1. Create Data Definition Language with Constraint.
2. Create DML.
3. To build in Queries in various function Character Function, Numeric Function, and Date Function.
4. To create SQL using Logical operator and Function.
5. Create PL/SQL Program.
6. Create Program for exceptional Handling.

SEMESTER - IV

Subject Code: 17PC41
Course Name: RESEARCH METHODOLOGY

Upon completion of the course, the students will be able to

1. Introduce the research –The role of Research, Research process overview.
2. Perform research design, field research and survey research.
3. Explain sampling design and determination of sample design.
4. Describe methods, quantitative methods of data collection and survey methods of data collection.
5. Discuss the processing and analysis of data.
6. Explain the formulation of the research hypotheses –the importance of problems and hypotheses.
7. Describe the abstract, introduction, methodology, results, discussion, references and appendices.

Subject Code: 17PC42
Course Name: INDIRECT TAX

Upon completion of the course, the students will be able to

1. To understand the indirect tax and commercial of taxation.
2. To acquire the knowledge of central excise act 1944.
3. To understand customers act 1962.
4. To evaluate GST Procedures and valuation of taxable in GST.
5. To explain taxable services and valuation of taxable service.

Subject Code: 17PCE4A / 17CE4B
Course Name: SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT / INTERNATIONAL MARKETING

Upon completion of the course, the students will be able to

1. To understand security analysis and practical background in field of investment.
2. To create awareness about risk and return of different investment.
3. To enlighten the evolution of securities and derivatives, valuing equity and dept. instruments measuring the portfolio performances.
4. To make them understand the investments decision and portfolio performances.
5. To make the students eligible for employment in teaching profession and employable in corporate sector including confidence among the students to appear for competitive examination.

Subject Code: 17CE4B
Course Name: INTERNATIONAL MARKETING

Upon completion of the course, the students will be able to

1. To acquaint the students with the knowledge of Export and Import trade.
2. To understand the students to learn the contribution of various institutions in the promotion of export.
3. To help the students to know about the export pricing and distribution of marketing.

Subject Code: 17PC43
Course Name: SOFTWARE ENGINEERING

Upon completion of the course, the students will be able to

1. Understand the deep knowledge of software engineering process and process models.
2. Develop an ability to measure the software and identify the metrics in the software process.
3. Acquire strong fundamental knowledge in software quality and analyze its concepts and principles.
4. Understand on quality control and how to ensure good quality software.
5. Discuss various software testing issues and solutions in software unit test, integration, validation and system testing.

Subject Code: 17PCPR4
Course Name: PROJECT

Upon completion of the course, the students will be able to

1. Understand how to develop java., Dot net project.
2. Use an integrated development environment to write, compile and run the project.
3. Use a version control system to track source code in a project

DEPARTMENT OF ENGLISH
P.G.

DEPARTMENT OF ENGLISH - PG

Programme Code: E **Programme Name:M.A.(English)**

Programme Outcomes

1. Be eligible to pursue further higher studies and research in the field, say Ph.D. (National)
2. Evolve as a creative writer in English with phenomenal writing skills. (Global)
3. Open themselves to varied area of career prospects in journalism, teaching profession, Communicative English Training, Civil services, Banking; as Translators, Proof Reader, Linguist, Public Relations Officer and more, either nationally or internationally. (National)
4. Visualize life and life's experience in a more aesthetic and positive way. (Global)
5. Be eligible to become competent student who would further wish to pursue a carrier in English language teaching. (Global)

Programme Specific Outcomes

On completion of M.A English Programme, the students would be able to

1. Hone their critical thinking skills by contextualizing issues based on historical, political, cultural and social contexts. (Global)
2. Improve their ability to research and analyze complex written information. (National)
3. Learn the interconnectivity of literature with other arts like Psychology, Sociology and Philosophy. (Global)
4. Aware of texts and their historical and cultural context in English. (Global)
5. Understand the issues of Gender and Sense of identity. (National)
6. Apply various approaches and literary theories to the work of art. (Global)
7. Comprehend varieties of English language and develop a writing style of their own. (National)

Course Outcomes

SEMESTER – I

Subject Code: 17PE11
Course Name: CONTEMPORARY INDIAN WRITERS (Global)

Upon the completion of the course the students will be able to

1. To acquaint the students with contemporary Indian English Writers in India.
2. To improve the knowledge on contemporary life in India.
3. To grab bounteous knowledge about Indian writers.
4. To analyze Indian Cultural and Traditional elements portrayed in Indian English Literature.
5. To understand the development of Indian English Writing.

Subject Code: 17PE12
Course Name: BRITISH LITERATURE (Global)

Upon the completion of the course the students will be able to

6. Review critically the main stream literary tradition of British Literature
7. Examine the evolution of English Literature starting from Spencerian Era till Modern Age.
8. Get a thorough knowledge of the representative writers of British Literature.
9. Learn the culture, traditions, norms and rituals of English social Life.
10. Study the influence of religion, science and other languages in the evolution of British Literature.

Subject Code: 17PE13
Course Name: HISTORY OF ENGLISH LANGUAGE (Global)

Upon the completion of the course the students will be able to

1. Learn that language is evolutionary with all changes independent of human intervention
2. Critically understand all the changes that happen in the sounds, words and meanings of English across time due to social influences and events
3. Become familiar with idioms and phrases that evolved over time and contributions with foreign sources.
4. Travel the timeline of how English has become a universal language of communication.
5. Know the factual, technical and empirical evolution of English Language.

Subject Code: 17PE14
Course Name: **PHONETICS** (Global)

Upon the completion of the course the students will be able to

1. Adapt themselves to correct pronunciation and accent in English.
2. Acquire skills of speaking effectively and charismatically.
3. Learn the technicalities and the science behind language acquisition.
4. Discern the co-ordination of vocal organs and speech sounds that produces effective pronunciation and style in speech
5. Focus on classification and production of speech sound, thereby enhancing communicative skills.

SEMESTER – II

Subject Code: 17PE21

Course Name: AMERICAN LITERATURE (Global)

Upon the completion of the course the students will be able to

1. Learn the unique American culture and prominent literary figures emerged through Literature.
2. Appraise awareness about various unique post modern and post colonial themes like transcendentalism, existentialism and more.
3. Establish the psychological conflicts and tensions of American life through literary portrayals.
4. Read and analyze the eminent and august writers of the era to explore about the American culture, lifestyle and emotions.
5. Comprehend the lexical differences and similarities of British and American writings.

Subject Code: 17PE22
Course Name: CONTEMPORARY LITERARY THEORIES (Global)

Upon the completion of the course the students will be able to

1. Develop knowledge about the critical tools for the systematic interpretation of Literature.
2. Enhance their analytical skills on how to delve deeper into the rich and insightful meaning of texts.
3. Develop different approaches to study literature, say, psychological, sociological, lexical and more
4. Improve their knowledge about various schools of critical theories.
5. Become proficient in analyzing the relationship between authors, readers and texts.

Subject Code: 17PE23
Course Name: BIOGRAPHY (Global)

Upon the completion of the course the students will be able to

1. Learn the life and achievements of greatest personalities of the world.
2. Motivate themselves studying the course of the global stardust personalities.
3. Acquaint themselves with unique level of research involving archival study, interviews and eyewitnesses with robust and attractive narratives.
4. Dissociate themselves with conventional concept of heroes and narratives of success
5. Visualize the course as an independent discipline that teaches varied virtues and morals that is resulted from the blend of history, psychology, sociology and literature.

Subject Code: 17PEE2A
Course Name: TAMIL LITERATURE IN TRANSLATION (National)

Upon the completion of the course the students will be able to

1. Comprehend the socio-cultural historical and linguistic background of Tamilians and their Literature.
2. Apprehend personal responses and perspectives on the various traits of Tamil Literature.
3. Learn the cultural trends of various periods and various aspects of life including love, war, social values and religion.
4. Get acquainted with the noteworthy assembly of poets and their poetical verses in different genres of Tamil Literature.
5. Glimpse into the political set up of Tamil region and its influences in the literary productions.

Subject Code: 17PEE2B
Course Name: JOURNALISM AND MASS COMMUNICATION (National)

Upon the completion of the course the students will be able to

1. Learn about how to write for Media, the history of Media, the pattern, the flare and how to produce newsworthy content.
2. Develop knowledge in various fields such as politics, sports, entertainment, technology and much more
3. Enhance skills about Public Relations on how to build and promote brand image
4. Develop skills in the art of advertising by creating content of high creativity and interest.
5. Be in tune with social media advancements so as to use the platform to efficiently share information.

Subject Code: 17PEE2C
Course Name: LITERATURE AND PSYCHOLOGY (Global)

Upon the completion of the course the students will be able to

1. Understand how two bodies of work-literature and psychological writing-were secretly twinned.
2. Understand the diverged framework of human-thoughts through Literature.
3. Apply the psychological theories in interpreting literature, thereby delving deep into the chores of human emotions
4. Trend themselves with the current vogue of multi-and interdisciplinary studies.
5. Involve in pragmatic applications of psychological findings in life through literature.

SEMESTER – III

Subject Code: 17PE31
Course Name: HUMAN RIGHTS IN LITERATURE (Global)

Upon the completion of the course the students will be able to

1. Develop their empathy and social understanding
2. Encounter more literary and cultural texts to study the representations and discourses of rights
3. Articulate about the larger development governed by natural laws and state legitimacy as well as seen in literary works.
4. Be aware that writing is not just artistic and aesthetic but it's the power of literary creation's commitment to the society.
5. Understand the geopolitical changes and social crises through Literature around the world.

Subject Code: 17PE32
Course Name: AFRICAN AMERICAN LITERATURE (Global)

Upon the completion of the course the students will be able to

1. Understand and analyze how this genre is 'Slave narratives'
2. Explore the role of African American within the larger American Society.
3. Learn the indepth mystic meaning of racism, slavery and social equality.
4. Learn the factual and emotional views from the renowned writers on what it means to be American and their identity crisis.
5. Explore this genre as a post colonial literature that acts as a rhetorical self-definition.

Subject Code: 17PE33
Course Name: RESEARCH METHODOLOGY (Global)

Upon the completion of the course the students will be able to

1. Learn how to document the research paper for the study's overall validity and reliability.
2. Learn how to systematically design a study to address the research aims and objectives.
3. Learn different strategies to enhance the research experience at all stages of a research project.
4. Efficiently and originally summarize, paraphrase quote from the sources without being a plagiarist.
5. Learn how to evaluate the authority of the sources that a researcher consults, thereby organizing and the developing their writings.

Subject Code: 17PEE3A
Course Name: TRANSLATION: THEORY AND PRACTICE (Global)

Upon the completion of the course the students will be able to

1. Study the theory, application and description of translation so as to interpret and localize any piece of literary work all over the world.
2. Learn the sociolinguistic, communicative, hermeneutic, linguistic, literary and semiotic approaches of translating a literary work.
3. Enrich their writing style by applying the translation theories to reproduce any literary text without disturbing its originality.
4. Learn the importance of multilingual competency.
5. Upgrade themselves with diversified and colossal use of words, phrases, clauses and sentences in different languages.

Subject Code: 17PEE3B
Course Name: INDIAN DIASPORIC LITERATURE (Global)

Upon the completion of the course the students will be able to

1. Study the yearning sense of the immigrants towards the motherland which overwhelms in all the Diasporic works.
2. Examine the psychological traumas associated with the lives of the immigrants.
3. Elaborate the cultural differences and the sociological difficulties in migration.
4. Define the emotional suffocation suffered being in the foster country.
5. Analyze dominant post colonial themes such as alienation, identity crisis, transcendentalism, displacement, dislocation and more.

SEMESTER – IV

Subject Code: 17PE41

Course Name: SHAKESPEARE (Global)

Upon the completion of the course the students will be able to

1. Approach Shakespeare's works with more technical insights (e.g. iambic pentameter), tragedy, comedy, soliloquies.
2. Recognize and instigate their perceptions of philosophy and intellectual view points of the Renaissance.
3. Interpret and unravel their insight into his timeless characters, riveting plots, universal human themes and versatile dramatic techniques.
4. Apply the knowledge of the social, political, intellectual context of Elizabethan England.
5. Develop a life-long love of appreciation for one of the English language's greatest artist.

Subject Code: 17PE42
Course Name: CANADIAN LITERATURE (Global)

Upon the completion of the course the students will be able to

1. Develop a critical awareness and sensitivity to the tensions created by racism in Canada in the past and the present.
2. Develop an insightful understanding of the relations between nation building and literature.
3. Cultivate reading strategies for recognizing allusions and symbolic knowledge other than western.
4. Discover the ability in themselves to recognize colonizing narratives and representations.
5. Discuss the historical and critical processes involved in developing a Canadian Literary Canon.

Subject Code: 17PE43
Course Name: NEW LITERATURES IN ENGLISH (Global)

Upon the completion of the course the students will be able to

1. Establish their awareness on the language and literature of the former colonies of British Empire.
2. Update their erudition on the trending post-colonial themes.
3. Notice and apprehend the indigenous words that are incorporated in the writings without translation.
4. Recognize the artistic voices from the newly emerged independent countries
5. Trace the evolutions of different literary traditions around the world.

Subject Code: 17PEE3C
Course Name: LITERATURE AND PHILOSOPHY (Global)

Upon the completion of the course the students will be able to

1. Discover the literary treatment of philosophers and philosophical themes.
2. Enlighten themselves with a blend of sacredness and science through literature
3. Envisage the relationship between mind, body and soul that is depicted through literature.
4. Evolve oneself into a deeper understanding of life itself and the purpose of human existence.
5. Associate their classroom learning experiences with experiences of life.

Subject Code: 17PEPR4
Course Name: PROJECT (National)

The Post graduate students, on the completion of the course, would be able to

1. Acquire independent judgement and first hand experience.
2. Develop and manifest an erudite reading habit, thereby, forming consciousness and awareness of all the courses that they have completed.
3. Motivated to become research scholars and teaching professionals.
4. Frame practical knowledge of Research Methodologies and different approaches that they learnt theoretically.
5. Unravel an expeditious, thorough and constructive application of the courses learnt.

The Project requirements are

1. The length of the project report should not be less than 50 pages
2. Documentation should be done in the standard MLA format.
3. The progress of the project report should be duly supervised by the faculty.

DEPARTMENT OF PHYSICS
P.G.

DEPARTMENT OF PHYSICS-PG

Programme Code: PP **Programme Name: M.Sc. Physics**

Programme Outcomes

1. Coherent understanding of academic field of Physics through laboratory experiments.
2. Acquire knowledge to analyse and solve advanced problems in Physics.
3. Ability to carry out advanced tasks and projects successfully.
4. Acquiring recent knowledge towards the research.
5. Developing research skill provides them to work in scientific and in research laboratories

Programme Specific Outcomes

1. Develop experimental and data analysis skills through a wide range of advanced level Physics experiments.
2. Acquire subject knowledge and skills of the calibre sought by industry, as well as provides academic teachers and researchers of the future.
3. Trained to evolve new technologies in their own discipline
4. Learning research skills which includes advanced laboratory techniques.
5. Understand the skills of independent investigation of Physics related problems.

Course Outcomes

SEMESTER - I

Subject Code: 18PP11

Course Name: MATHEMATICAL PHYSICS-I

Upon completion of the course, the students will be able to

1. Acquire knowledge on the Mathematical basis of vectors and their application in Physics problems.
2. Gain knowledge on the concept of eigen vectors and eigen values and their physical meaning
3. Analyze the problems using different methods of special function

Subject Code: 18PP12
Course Name: CLASSICAL MECHANICS

Upon completion of the course, the students will be able to

1. Understand the mechanics systems of particles and apply the Lagrangian to solve the macroscopic physical problems.
2. Apply the Hamiltonian's formalism for solving the macroscopic physical problems.
3. Analyze the system using Hamilton – Jacobi Theory.

Subject Code: 18PP13
Course Name: ADVANCED ELECTRONICS

Upon completion of the course, the students will be able to

1. Understand the working of different semiconductor devices and operational amplifiers.
2. Gain the knowledge of Digital to Analog conversion, Analog to digital conversion technique and corresponding circuits.
3. Learn to design Flip flops and counters.

Subject Code: 18PPE1A
Course Name: NUMERICAL METHODS

Upon completion of the course, the students will be able to

1. Obtain knowledge on the algebraic and transcendental equations.
2. Familiarize the knowledge about Interpolation of Forward, Backward and central differences.
3. Acquire knowledge about the Least squares, B-splines, Numerical differentiation and integration.

Subject Code: 18PPE1P
Course Name: PROGRAMMING IN C++

Upon completion of the course, the students will be able to

1. Get a wide knowledge about Principles of OOP, Tokens, Expressions and Control Structures.
2. Learn the knowledge on the Inheritance and Pointers.
3. Managing console I/O Operations, Files.

SEMESTER - II

Subject Code: 18PP21

Course Name: MATHEMATICAL PHYSICS-II

Upon completion of the course, the students will be able to

1. Use the characteristics of complex function the method of Cauchy integral theorem, Taylor's and Laurent's series.
2. Evaluate residues and definite integrals.
3. Apply the concepts of tensor analysis and tensor calculus to formulate physical laws and simplify them using coordinate transformation.

Subject Code: 18PP22
Course Name: THERMODYNAMICS AND STATISTICAL MECHANICS

Upon completion of the course, the students will be able to

1. Acquire knowledge about different laws of thermodynamics.
2. Focus on the concept of phase space and its volume.
3. Learning the uses of partition function for calculations about the canonical ensemble.

Subject Code: 18PP23
Course Name: ELECTROMAGNETIC THEORY

Upon completion of the course, the students will be able to

1. Know about the basics of Electrostatics and Magneto statics.
2. Learn the use of the Maxwell's equations, role of gauge transformations, scalar and vector potentials.
3. Acquire the knowledge of the propagation of EM waves in waveguides.

Subject Code: 18PP21P
Course Name: PRACTICAL-I GENERAL EXPERIMENTS

Upon completion of the course, the students will be able to

1. Design the experiments and verify the theoretical concepts.
2. Gain the knowledge to handle the Data and error analysis.
3. Learn about the Physical experiments and also computational methods.

Subject Code: 18PP22P
Course Name: PRACTICAL-II ELECTRONICS

Upon completion of the course, the students will be able to

1. Familiarize with applications of zener diode and IC voltage regulators.
2. Designing amplifier, oscillator and wave shaping circuits for defined specifications.
3. Significance of various devices which are beneficial to understand how they will operate and use.

Subject Code: 18PPE2A
Course Name: INSTRUMENTATION

Upon completion of the course, the students will be able to

1. Introducing the concepts of measuring instruments of the different meters.
2. Explicate the construction and working of various recorders.
3. Apply the complete knowledge of various transducers to measure the physical quantities in the field of science ,engineering and technology.

Subject Code: 18PPE2P
Course Name: MEDICAL PHYSICS

Upon completion of the course, the students will be able to

1. Develop medical Physics methods and tools related to Physics, radiation biology and radiation detection and computation in research setting.
2. Learn the instrumentation techniques of bio potential recorders.
3. Acquire the understanding of the working of operation theatre equipments.

SEMESTER - III

Subject Code: 18PP31

Course Name: SOLID STATE PHYSICS I

Upon completion of the course, the students will be able to

1. Get a brief idea about crystalline and amorphous substances, about lattice, unit cell, concept of Brillouin zones and diffraction of X-rays by crystalline materials.
2. Gain the wide view about phonons and its importance.
3. Enhance the idea about Semiconductor Crystals and their properties.

Subject Code: 18PP32
Course Name: QUANTUM MECHANICS I

Upon completion of the course, the students will be able to

1. Study the postulates of Quantum mechanics and understand the concepts one dimensional problem.
2. Grasp the concepts of angular momentum operators, Eigen values and matrix.
3. Acquire the knowledge of relativistic Quantum Mechanics.

Subject Code: 18PP33
Course Name: NUCLEAR PHYSICS

Upon completion of the course, the students will be able to

1. Acquire the basic aspects of nuclear reactions, the Q-value of reaction and known to measure the nuclear size from Rutherford scattering.
2. Gain the knowledge about the Nuclear Fission and Fusion.
3. Comprehend the Elementary particle and classification of Elementary particle.

Subject Code: 18PPE3A
Course Name: NANO PHYSICS

Upon completion of the course, the students will be able to

1. Grasp the principles, fabrication and design of carbon nano tubes and their application.
2. Apprehend the theoretical and experimental aspects of quantum wells, wires and dots.
3. Realize the techniques of nano machines and nano devices, expected to provide the necessary understanding in nanotechnology.

Subject Code: 18PPE3B
Course Name: SOLAR ENERGY

Upon completion of the course, the students will be able to

1. Learning the fundamentals of solar energy technologies.
2. Evaluate the concept of solar thermal technology for process heating applications.
3. Measure and evaluate different performance testing of solar collectors.

SEMESTER - IV

Subject Code: 18PP41

Course Name: SOLID STATE PHYSICS II

Upon completion of the course, the students will be able to

1. Apprehend the basic idea about superconductors and their classifications.
2. Gain the basic idea about Plasmons, Polaritons, Polarons and Excitons.
3. Recognize the defects and their types in crystals.

Subject Code: 18PP42
Course Name: QUANTUM MECHANICS II

Upon completion of the course, the students will be able to

1. Grasp the concept of perturbation and transition probability.
2. Study the consequence of Relativistic wave equation.
3. Discuss the identical particles and spin matrices.

Subject Code: 18PP43
Course Name: MOLECULAR SPECTROSCOPY

Upon completion of the course, the students will be able to

1. Obtain the knowledge of microwave and IR Spectroscopy.
2. Demonstrate an understanding the concept of Raman Spectroscopy and its application.
3. Wide knowledge on the concept of electronic spectra of molecules.

Subject Code: 18PP41P
Course Name: PRACTICAL-III GENERAL PHYSICS

Upon completion of the course, the students will be able to

1. Acquire the knowledge of experimental Physics.
2. Improve the analytical and observation ability of Physics experiments.
3. Analyze the various physical properties such as optical, electrical and magnetic properties using experimental observations.

Subject Code: 18PPPR4
Course Name: PROJECT

Upon completion of the course, the students will be able to

1. Develop the skill to plan, execute and report the results of an experimental and theoretical Physics based project in research work.
2. Acquire the knowledge in the inter disciplinary project.
3. Make out the innovative ideas in research work.

Subject Code: 18PPE4A
Course Name: MICROPROCESSOR

Upon completion of the course, the students will be able to

1. Comprehend the structure and working of 8085 microprocessor.
2. Learning the looping ,counting and indexing.
3. Recognize 8085 BCD to Binary conversion and 8085 Interrupts.

Subject Code: 18PPE4B
Course Name: CRYSTALLOGRAPHY

Upon completion of the course, the students will be able to

1. Analyze the methods involved in crystal structure determination.
2. Gain the knowledge of different methods of recording X-ray diffraction.
3. Explore the applications of crystallography to study the structures of Molecules.

DEPARTMENT OF TAMIL

P.G.

Department of Tamil

Programme Code: PT **Programme Name: B.A. Tamil**

Programme Outcomes

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. ெதமாழியி ஆ ைம தறைன ,தமிழ கைல இல கிய வ வ கைள தறனா ெச தறைன வள! த .

2. தமிழிய சா!"த ஆ கைள ேம$ெகா% ப மாணவ!கள உ>வா *த .

3. ெமாழி தற ம$+ பைட–. தறைன ேம ப/ ொத .

4. தமி1 * பறொைறக *மான ெதாட!பிைன அறிய3 ெச த .

5. தமி இல கிய இல கண அறி நர பிய மாணவ!களாக உ>வா *த .

6. தமி இல கிய வைகைமகளி ஏ$ப/ மா$ற கைள அறி தறைன வள! த .

7. தமி இல கிய க% வல ி + ொ அற கைள உண3ெச வொட ச8க ,
அரசிய ,ப9பா/ ஆகியவ$றி ேத!"த மாணவ!களாக உ>வா *த .

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பஓஈஓணஈ‼ ழுரு வஙாஈாலெ ஆ

Subject Code : 17PT11

Title of the paper ! —பஈபலண ! —ணபஈஙடிடஈ‼

2. —பஈபணிறிமஈமலவஎஈபவஙநஈ!ாதஅாஈமஈ!மஙஓதநெஓஙரஎ.!

3. கஅபாஈ!ாலசஈஙதநழமஎஙகஈழுழுபலவஈரஎ.!

4. ர்தநபதமடிஙநஈ!—ணபஈஙடி!—ணபஈ௱டஎர்பதவாஈ!ர்ஙகஈழுழுபலவஈரஎ.!

5. ர்மஙந ! —ணபஈஙடிமஈமஙநஈ!ெதடாஈஙதநமஈ!ழமஎஙகஈழுழுபலவஈரஎ.!

6. ாதஅாஈஙலவஎஈபவஙநஈ!னதஎகதஅடிஙநஈ!ரி ஙி ! னதஎரவமஈஙதநாஈ!ழாஓரஎ!

Sub code : 17PT12

Title of the paper : ழமலணஈபலாஈஙடிடஈ!.!றிமஈமஙபலடஈ‼ ! !

பஓஈஓணஈ! ழுரு வஙாஈாலெ ஆ !

2. ஙணஈபலாஈஙடிஙஈ!புஓஙாஈஙஆபஙநிறிமஈழுடஎர்பதவாஈ!ாஓஈஓெஓஙகஈழுழுபலவஈரஙஈ.!

3. றிமஈழுபவஈ!ாஙஓபஈபுடஈ!—அசஈபவஈ!ாஓஈஓஙடடஈ!ர்௱ ஙஙரஙமஙபவஈ!புஓமஈழுடஈ!கநஈபுழமஙரஙஈ.!

4. றிமஈமஙணபஈ௱ ரஙமஙபவ; னதஎடிஙஙஙடஜனதஎமஙஓநஈ!ாஓஈஓகநஈபுெஓஙரஙஈ.!

5. ழமலணஈபலாஈஙடி ! —ணபஈ௱ மஈதம,ாஙஓ ! —ணபஈ௱ ே ஙஙடிஙஈபவஙநஈ!

—ணபஈ௱ மஈழுமலஆலாஈஆழஎடிஈஙநஈஓமஙஓதநாஈ!ழாஓரஙஈ.!

6. —ணபஈஙடிசஈபுவலஆ, ! —ணபஈ௱ மஈஙதநாஈ!ழாஎமஈஙேஎடிஈஙநஈஓெஓஙரஙதநறடிஈழுரஙஈ.!

Subject Code : 17PT13

Title of the paper ! கஅஈஆாஈஓரஙடிணஈ‼ ! ! !

பஓஈஓணஈ‼ ழுரு வஙாஈாலெ ஆ !

1. அஈதாஈஓடபஈபவஙநஈ!எருபஎஈ!ஙகஈமதநபதவெஓஙரஙஈ.

2. கதஅடுதஓடஓஈஓடஈ!பதணபவிர ி பஈிர ி பஈபசஈபவஈ!டுமணஙடிரஓஈதஓாஈ!ர்ஙகஈழுழுபலவஈரஙஈ.

3. கஅஈஆாஈஓபஈ!பதமாஈஅணஈபதவ ! —ணபஈஙடிசஈபவஈ!ருணடஈ!ழமஙகஈழுழுபலவஈரஙஈ.

5. கஅஈஆாஈ!ர்ஓபஈ!பதணபவஈ!டஓஈஓடஈ!டபஈபவஙநஈ!கடஈஙபஈதபபதவன௱ எஈரஙஈ.!

5. ட௱ ஙஜகஈமடபஈபவஙநஈ!ரி ஈபஈதபடுதஓபதவடடஈ!பதணர உர சஈபதவடடஈ!ெஓஙரஙஈ.

Subject Code : 17PT14

Title of the paper : —தஅபஈபலண ! —ணபஈஙடிடஈ‼ !

பஓஈஓணஈ! ழுரு வஙாஈாலெ ஆ !

2. ஙஈ ! —டிபஈபபணபஅஈஅமஈஙநஈ!எருப!ா௱ ஈஅஈஆர எணலஓஈஓதநமஈ!ழமஙகஈழுழுபலவஈரஙஈ.!

3. எடடிபஈபுஎரஈபதவலாஈஅஈஆாஈ!ாலஈபஈபுடஈ!மஙஓதநாஈ!ழாஓரஙஈ.!

4. எடடி ! —ணபஈஙடிசஈபவஈ!ழுரவஙாஈஆமஈழுடஈ!ாபஈமஈஙஓமஙதநெஓஙகஈழுழுபலவஈரஙஈ.!

5. டுஓஈபணஎடடிாஈநுரணஈபதவடடஈ!ஙஓஈபணஎடடிாஈ!ாநுரணஈபதவடடஈ!லாஈஅஈஆெஓஙரஙஈ.!

6. எடடி ! —ணபஈஙடிசஈபவஙணஈ!ழுரவஙாஈஆடஈ!எடடிகடஈஙபஈதபபவிர ி ஙாஅஈஆடுதஓபவஈ!

னவஈவஅஈஅதரபதவெஓஙரஙஈ.!

Subject Code : 17PTE1A

Title of the paper ! ! ─மி டிணர!பதண ! ! !

பஓஓணர!! ழரவரோஆ் !

1.மெடி ! ─மி பவநர!ரணஓஓதநெஒரள.!

3. ─மி பவநர!டுபபடிமழரமதமம!ழமணகழழபவரள.!

4. ─மி பவநர!ரமார!ளர!ளஅஅசபதவெஓகழழபவரள!

5. ழளடிமபவநர!ரதபபவர!டஓஓட!ேளிடிளபவநர!ாபதவார!ாஓழமணகழழபவரள.!

6. ─மி பவணர!ாதஅபபுட!மஓநர!ழாஓரள.!

Sub code :

17PTE1B Title of the paper : .2 ! ! !

மஏபபுஓவ!!

! பஓஓணர!! ழரவரோஆ் !

2.மஏபபுஓவ!னணபழடொ பவண!ஓாபமொப ரமஓபநபளெ மதமகநபுெஓகழழபவரள.!

3. மஏபபுஓவண!அஅாழாஓபநஓரொ ரடிண!ெஓசபதவன ளகழமட!ரொ பதபடிண!
பதஅாஉாமஓநரொ டுதஓபதவழடஓழபவரள.!

4. மஏபபுஓவநர!ழாஏதடடிதநறஆமழதளபநஓமஓதநார!ழாஓரள.!

5. மஏபபுஓதவிடுதடடிபபப!பஓமநர!ரடிணபரொ ரண!ழடடாஆெதஅரள.! !

6. ா கரொடா !ெஓ ! ─ ெஓரதநார!ழாஓரள.!
ணபடிசபழவஆமஏபபுஓதவலாஅஆேடிநஓ

Subject Code : 17PT21

Title of the paper : ெஓ─ணபடிட!! ! !

பஓஓண!ழரவரோஆ் !

2. மழடடாஅஉஓபுரொ ரபுபபுட!ெஓபஏமழபதவட ரபவ!ன ளகமஏாரள.!

3. ா தஅடிபணடபவநரொ பரொ பசவ!ெரபவ!ரொ ரண!
ாநஓஓடிலிபழகஓபதவெஓகமஏாரள.!

4. துகமதடபவநர!ரொ பதபடுதஓபதவாஓஓட ரபவ!ழமணகமஏாரள.!

5.
6. மதடிடட!ெஓபஏமழபதவடட!ட ரபவுபபுறஆமழதளமண!ெரபவ!ரொ ரண!
னடிடிகதணதடிெதஅடட!மநதடதடிா!ழாஓஏாரள.!

6. ─நதஓடிபண ! கூணண!ெஓழகஓபவநர! ழமதரடிதநிடுதடடிபெஓகமஏாரள.! !

Sub code : 17PT22

Title of the paper : ழமணபளாடிட!.ழளணமபளட!! ! !
!

பஓஓணர!! ழரவரோஆ் !

1. ழமணபளாடிட!புஓாஆட!ழளஓபவநர!ரதபபதவெஓகழழபவரள.

2. ழரஓஓதடனஏர்பவ!டஓஓட!னடிமத ! ெ0ஓத ாஓழமணகழழபவரள.

3. ─ணபடிசபவண!─ ெஓகழழபவரள.
அடழாஓஓவவழளணணதடாழமஅஎதடாா ஓஓ

4.பணைகஈழுமஓைடஈ!ழளைஒஈபவஙநஈ!ெஉாஈாதஅடிஙணஈ!று ஒஈா ஆபஙநஈஒட ஓைஈஒசஈபதவன ைஈகஈமுழபவைஈரஊ:.
5.ழளணைஈணமஙபஎைமஈதமாஈ!ாஙஒ ! —ணபஈா ! கு ‘ணஈபழுவைஆடஈ! —ணபஈபஙடிசஈபழுவைஆடஈ!ழாஏைமஈமஙாஈ!
! !ாைஈபஈபஙநஈஒமஙஒதநாஈ!ழாஓர ஊ:.!

Subject Code : 17PT23

Title of the paper: பளா ௗடி ! — ! ! !
ணப ௗடிட!!

<u>பஓ ஓ ணஈ! ழ ர வாா ஆ</u> !

இர் தவ ெ ஓர ள.!
பாடிபணடப வநஈ!ரா ஈபதபக தண !ா ஆ ா ப ரா பசப
3. பளா டிச வநஈ!பஅஅதடா ப தவா ஈ!ா க ழ ழ ப வ ஈர ணா !

4. கடி ந ட ப வ ோ ஈர ப வநஈ! கதணா ஆ பு ஓம ழ ெ ஓ க ழ ழ ப வ ஈர ள.!
5. க ப படு ம ள கத ண ழ ம டி ஈர கட ப ஈ தப ட டி ச வநஈ! ெந ஈதஓ டி ! — ந ஈதஓ டி கதணடி தநம ஈ! ! ! !
! ழ ம க ழ ழ ப வ ஈர ள.!
6. பளா டி ச வநஈ!ா ப தவ ெ ஓடஈ!மஓ த நா ஈ!ழா ஓர ள.!

Subject Code : 17PT24

Title of the paper : மிட ஈ! — ணப டி ர ண ஓ ! ! !

<u>பஓஈ ஓணஈ! ழ ர வாா ஆ</u> !

2. மஈ! — ணப டிா ளா நஈ!ர ண ஓ ஓ த ந ெ ஓ க ழ ழ ப வ ஈர ள.!
3. ள ச ப ! — ஆ ம ர வ பஈபுடஈ!
ணப டி ச வணஈ! தடடிட ந ெபடஎதாடஈ!ர் ஓடஎதாடஈ!ர தபாா
மஓ த நா ஈ!ழா ஓர ள.!

4. மிட ஈ ரு பம நஈ!ா அஆ ெளடிண ஈ!ர ண ஓ ஈ த ஓ ப ஈ! பஅஅதடப ! —
ணப டிம ருப தவா ஈ!ா டி நஈ!
ழப வ ஈவுடஈ! டு த ஓ த டிா ஈ! க ழ ழ ப வ ஈர ள.!
5. ள ச ப ண ம ண ஏ க ழ ப ண க ம ஓ ட ஈ! — ணப டி ர உ ர ச ப வ ஈ!ட ஓ ர தமப ஈ! ப ஏ ஏடஈ!மஓ த நா ஈ!
ழா ஓ ஏா ள.! !
5. ழா அ உம ழம ருப ஈபும ஈ!மடி ள புடஈ! ! ம ஓ த ந ர வ ம ழ ப ஈ! ழ ப வ ஈர ள.

Sub code : 17PTE2A

Title of the paper : மபர ண ஈ!ழம அ டிணா!. ! 2 ! ! ! !

<u>பஓஈ ஓணா!! ழ ர வாா ஆ</u> !

2. மணஈ!ழம அ டிணநஈ!ர ண ஓட ஓஈஓடஈ!ர வ ள க தணப தவம ஈ!ழம க ழ ழ ப வ ஈர ணா !
3. — ம வநஈ!ழளடிண ஆ ப தவடஈ!பஅதடப தவடஈ! ன ஈர ள.!
4. மபர ணஈ!ழம அ ள ம ந ச வநஈ!ா ட ஓஈஓடஈ!ா டி நா ஆ பு ஓம ழா க ழ ழ ப வ ஈர ள.!
5.
ெ ள ரு ப ஈ!ப ஏ ர ப வநஈ!ர ஏ த படி ந ண ஈ!மிட ரு பட ஈ!ழா ஓ ஓா ம டி ர வம த நா க ழ ழ ப வ ஈர ணா!. !
6. ழளடி ப வ ண ஈ! ன ண ப டிண ஈ! ெ ஓ தர டஈ! ரா ா ா த ர டஈ!ழா ஓர ள !
!
Sub code : 17PTE2B

Title of the paper : .! 3 ! ! ! !
ம ஏ ப ஈ பு ஓ வ !

! <u>பஓ ஓ ணா!! ழ ர வாா ஆ</u> !

ிரரடிண!ெசபவநு!டுபடிமமுர மதமன ைகமுழப ைவரன.
2.மஏபபுஓவநு!ழா ஏ தடபதவா!ா ஓஓெஓகமுழப ைவரன
3.மஏபபுஓவ!ர ைடிண ைபரி ரடிண!ழுடட ைஆபவ!தெஅரமதநன ழப ைவரன.
ைகமு

4.மஏபபுஓவண!மு ஓா அஆவவெளடிண!மஓநு!பு ஓமமுட!ெஓ ழப ைவரன.
கமு
5.மஏபபுஓவ!பஓமநு!ர ைடிண ைபமநுநடபதபடிதநெதஅர
ை!

Sub code : 17PT31

Title of the paper : ா௄ ஈதஅடி ! – ணப ஈ ஙடிடஈ!.ெபட‼ ! !

!

ப ஓ ஈ ஓ ணஈ‼ ழ ர வஙா ஈ ஶ ஆ !

1. சஈடஎ! – ணப ஈ ஙடி ர த ப த ட , ர உ ர ட ஈ,ழ ள ர ஈ ரஙடி ண ஈ!ம ந ஈ த ட டு ம ண ஶ ந ர ஓ ஈ த ஓ ெ ஓஙக ஈ ழ ழ ப ஶ வ ஈ ர ஊ.

2. ஶ அ ஈ த அ ெ ஓ ஙர ஊ

ழ ம ஶ ண ஙண ண ப ஈ ஙடி ெ ஓ ஙடு ப ம ஈ ஙந ஈ! ரு ண ட ஈ!ம ட ஙீ ஙஈ!ள ரு ப ம ஈ ஙந ஈ!ா௄ா

3. ப ஶ ண க ஈ ழ ம ஶ ஓ ட ஈ!ட ஶ ஓ ஙர ஏ ட ஈ!ா௄ ஈ ஶ அ ஈ ஆ ! ழ ஓ ப த வ ெ ஓஙக ஈ ழ க ந ஈ த ட ம ஆ த ட ப த வ ா ஈ!ா பு ம ஈ ழ௄ ஶ ஈ ர ஊ.

4. ள ச ஈ ப ா ஈ ா நு ர ண ஈ ப வ ஙந ஈ!ம ஶ ப ஈ ப ட ஈ!ா ஙஓ ஈ ப ஶ ண ! – ணப ஈ ஙடி ச ஈ ப வ ஙண ஈ!ழ ர வ ஙா ஈ ஶ அ ஈ ஆ ள ஙஓ ா ஈ ா த ம ! –

ந ச ஈ ப ஶ ஜ ட ஈ!

ம ஙஓ த ந ா ஈ!ழ ா ஓ ர ஊ.

5. ள ச ஈ ப ! – ணப ஈ ஙடி ம ஈ ஙந ஈ!ப ஓ ஈ ா த ந க டி ட ஈ!ெ ஓஙக ஈ ழ ா த அ ா ஈ ஶ ஓ ஈ ஓ த ண ழ ட ட ஈ ா ஆ ம ஈ ஙப ஈ!ழ ப ஶ வ ஈ ர ஊ

Subject Code : 17PT32

Title of the paper : ழ ம ஶ ண ஈ ப ள ா ஈ ா ஙடி ட ஈ!. ழ ா ஶ ஏ வ ம ஙப ஶ ள ட ஈ!. ! 2 !

பஓஈஓணஈ! ழ ர வஙா ஈ ஶ ஆ !

1. 2. த ப க ஙண ட ஈ!ள ஶ ஶ ஈ ஈ ம ட ப ஈ ப வ ஙந ஈ!ர ஶ ஈ ரஙடி ண ஈ!ர ஙட ஙடி ச ஈ ப த வ ெ ஓஙக ஈ ழ ழ ப ஶ வ ஈ ர ஊ. !

3. ள ச ஈ ப ப ஶ ண ா ஈ! ழ ா ஶ ஈ! கு அ ஈ ா ச ஈ ப த வ ா ஈ!ா ஓ ஈ ஓ ஙெ ஓஙக ஈ ழ ழ ப ஶ வ ஈ ர ஊ. !

4. ெப ! – ணப ஈ ஙடி ச ஈ ப வு ப ஈ பு ட ஈ! ெப ! – ா ஈ ஶ ஆ ப த வ ா ஈ!

ண ப ஈ ா௄ ட ள ர ப வு ப ஈ பு ட ஈ!ன வ ஈ வ ழ ா ஶ ஏ ம ஙங ஙக ஈ ழ ழ ப ஶ வ ஈ ர ஊ. !

5. ழ ம ஶ ண ஈ ப ள ா ஈ ா ஙடி ா ஈ! ழ ா ஶ ஏ வ ம ஙப ஶ ள ட ஈ!ப அ ஈ ஆ த ட ப ஈ பு ட ஈ ர ஓ ! – ணப ஈ ா௄ ட ள ர ப த வ ! – ணப ஈ ஙடி ச ஈ ப வ ஙண ஈ!

ழ ா ஶ ஏ ம ஈ ஙா ஈ!ா ஶ ஈ ப ஈ பு ட ஈ!ம ஙஓ த ந ா ஈ!ழ ா ஓ ர ஊ. !

6. ம ட ஙரீ ஈ!ழ ட ஙீ ஙடி ஙணு வ ஈ வ ழ ா ஶ ஏ வ ஙண ப ஈ ா௄ கு அ ஈ ா ச ஈ ப த வ ! – ணப ஈ ா௄ ! கு ‘ ண ஈ ர ஙீ ! ெ ஓஙக ஈ ழ ழ ப ஶ வ ஈ ர ஊ. !

Subject Code : 17PT33

Title of the paper ! ள ச ஈ ப ட ள ர !! !

ப ஓ ஈ ஓ ணஈ‼ ழ ர வஙா ஈ ஶ ஆ !

1. 2. ஙவ ! – ணப ஈ ஙடி ச ஈ ப வ ஙந ஈ!ா ஶ ஆ ழ ா ஶ ஏ வ ஈ ப த வ ெ ஓ ஙர ஊ. !

3. ள ச ஈ ப ா ஈ!ா ஶ அ ண ஈ ப வ ஙந ஈ!ம ஙத௄ ‛ழ த ஓ ப த வ ா ஈ!ர ஙக ஈ ழ ழ ப ஶ வ ஈ ர ஊ. !

4. ெப ா ஈ ஓ ா ஶ அ ண ஈ ப வ ஙந ஈ!ர ஙீ ! ர ஶ ஈ ரஙடி ண ஈ!ர ஙட ஙடி ச ஈ ப த வ ம ஈ!ழ ம ஙக ழ ழ ப ஶ வ ஈ ர ஊ. !

5. ட ஶ க ஈ ம ள ஈ ப வ ஙந ஈ!ன வ ா ஈ ா ஶ ச ஈ ஙத ந ா ஈ!ர ஙக ஈ ழ ழ ப ஶ வ ஈ வு ட ஈ!ம ஙஓ ந ஈ!ழ ா ஓ ர ஊ. !

6. ள ச ஈ ப ா ஈ!ர ண ர ள ஈ ப வ ஙந ஈ!ர ண த ட த டி ெ ஓ ஙர ஊ. !

Subject Code : 17PT34

Title of the paper ! ! ல ா ஈ ா ஙண ப ஈ ஙடி ட ஈ‼ ! !

! ப ஓ ஈ ஓ ணஈ‼ ழ ர வஙா ஈ ஶ ஆ !

1. 2. ஙண ப ஈ ஙடி ம ஈ ஙந ஈ!ரு ண ட ஈ! – ணப ஈ ஙடி ச ஈ ப வு ப ஈ ஙத அ ழ டி டி ஶ ந ன ஓ ர ஙத ந ம ஈ!ழ ம ஙக ஈ ழ ழ ப ஶ வ ஈ ர ஊ. !

3. ழ ர ர ஈ ழ ர ஓ ழ ஙீ ! – ணப ஈ ஙடி ச ஈ ப த வ ல ா ஈ ா ஆ ட ஈ!ம ஙஓ த ந ா ஈ!ழ ா ஓ ர ஊ. !

4. ல ா ஈ ஙண ப ஈ ஙடி ழ ப ஶ அ ஈ ா ஶ அ ஈ உ த ந ா ஈ!ர ஙக ஈ ழ ழ ப ஶ வ ஈ ர ஊ. !

5. ஈஙஒழிடுளி ஙழமஜஅளஈஜநளரூபளஈ!ளூஇ தணெஓஙகஈழுழபஜவஈரளஃ.!

6. ஈஙஒழிடுளி ங! –ணபஈபஙடிவே்வு தடபதவமஈ!ழமஎஙகஈழுழபஜவஈரளஃ.!

Subject Code : 17PTE3A

Title of the paper ! மபரணஈ!ழமஅளர்டிணஈ!**II**

பஓ்ஒணா!! ழரவஶா்ஆ் !

2.ீமபரணஈ!ழமஅளர்டுதஓாஓ்ஓடிர்மடிாடிநுவஈவப ழு அ்அமஈதமெஓரஸ.!

3.ீழளடிர்பவணஈ!னணபடிணஈ!ெஓருடஈ!ரா ா்் ஜருடஈ!ழாஓரஜ.!

4.ீ4.ீளடுமடிம்ணஈ!மநட நமநஈ!ளரூப்ழாஏவமளரவளாஓ்ஓெஓக்ழுழபவஈரஸ.!

5.ீமபரணஈ!ழமஅளர்ரவளஷகதணபதவெஓரஸ.!

6.ீமபரணஈ!ழளடிணஈடுதஓதடிாஈ!ாஓ்ஓெஓக்ழுழபவஈரஸ.!

!

Subject Code : 17PTE3B

Title of the paper .!4! ! ! !

:மஏபஈபுஓவஈ!

பஓ்ஓணஈ! ழரவஶா்ஆ் !

2.ீ மஏபஈபுஓவநஈ!பஏம்ழளஈ!ழளஓதரெஓக்ழுனணபாஈ!ழாமுடதஓறந்தமன ளஈரஸ.!

3.ீ கஅநஈ!ெஓமஈதமடஈ!ழுடநஈதடதடிடஈ!ெஓரஸ.!

4.ீ மஏபஈபுஓவஈ!ரா ஈரடிணஈ!ழகஓபதவன ளம்ழுடஈ!ழுரமடஈ!றந்தம !

–

பணரா ஈரடிழுணஆலாஅஆமஈ!ழமவரஸ.!

5.ீ ழளணஈரம்நஈ!ளஓாதநடஈ!ெதமாஈ!ாடிந்ஆம்ழுடஈ!ட ்தநடஈ!ெஓரஸ.!

6.ீ ஒடஈ!ளளகாதஅா்பதவனஏரபஈபுடஈ!மஓநஈ!ழாஓரஸ.!

Subject Code : 17PT41

Title of the paper :ா ஈதஅ! –ணபடிடஈ!.!ர்ஓடஈ!

!

பஓ்ஓணஈ! ழரவஶா்ஆ் !

2.ீழளரஈரடிணஈ!–ணபடிசபவநஈ!ா ்அரீடிசபதவெஓக்ழுழபவஈரஸ.!

3.ீா ஈதஅமஈ!மீடா ளநஈ!ரா ்தபடுதஓ்ெஓழகஓாபழகஓுாறந்ஓர்ரீடிசபதவமஈ!
ழமகழுழபவஈரஸ.!

4.ீடநஈநபவநஈ!ுாளஈடுதஓ! ்ே அடுதஓ்! ளெடிணதடா்! டுமணந! ழாஏ ஈதடபதவ!
ன ள்்ழு! ழபவஈரஸ.!

5.ீளசபணரா ஈரடிணஈ!ழகஓபதவ! –பணரா ஈரடிண! ழகஓபுவஆலாஅஆமஈ!ழமவருழாஓரஸ!

6.ீர்மடிடளணபடிசபவஈ!ாதஅபஈபுடஈ!மஓநஈ!ழாஓரஸ.! !

6XEMHFW &RGH 37

Title of the paper : –ணபடிடுடஈ!னவரடிணுடஈ! !

!

2.ீனவரடிணநஈ!ுமஓ்ஓடஈ!ரவளாஓ்ஓெஓரஸ.!

3.ீ

ுடதணகஅஆனவரடிணஈ!ெஓசுபதவடஈ!ரெமடஈ!ுபஅஆபதவடஈ!ழமகழுழபவஈரஸ.!

4.ீா கீடா ஈ!–

ணபடிமமணஈ!னவாபுாடிடுபஈ!ுபஅஅஉதநலாஅஆுகபஈபுடஈ!மஓதநாஈ!

ழா ஓர ளை.!

5. பணைகழுமலைஓட மி ! — டலைஒசதவ ஒஙகஏா ளை.!
ணபடிசவணை! ! ஙு ஓ ஆ பநஒனவரடிண!

6. — ணபடிடகைமலைவந!வே தடமஒதநழரவா ஆமமுட! ! ஒரதநா!ழா ஓர ளை.!

Subject Code : 17PT43

Title of the paper : ழமணைபளாஙடிடஈ!.! ழாளஏவமஙபளடஈ!.!3!!

பஓஓணஈ! ழூ வஙாளஆ!

2.: ழடடிஙளஆ ?ன ர தட ழமளஅளந ழமணைபளாஙடிபஈ! ழபஅளஆப தவ ெஓஙகழழபளவஈரஙஃ.!

3.: –ணபஙடிடஈ!ளஙஙடளாஙடிணஈ! ழளடிஙபதவ ! –ணப ஙா ஙமஈ! ழமஙகழழபளவஈரஙஃ.!

4.: ழமணைபளாஙடிடஈ! டு நஈதர பஈபுடஈ! ழளடிஙவஈ! ன ஓா ப தவ டைடஈ! ழளடிஙவஙடிணஈ! ழபஅளஆப தவ டைடஈ! ழமஙகழழபளவஈரஙஃ.!

5.: மீட ஈ! –ணபஙடிசபதவாஈ! ழாளஏவஙணபஈ பஈ! ழபஅளஆப ழவளஆலாா ஙஅஆ ெஓஙகழழபளவஈரஙஃ.!

6.: ! ழளடிஙவஙநஈ! ர உர டஈ! ளஙஙெ ஜ பு டு த ஓ ப தவ மஈ! ழமணைபளாஙடிளஈ! ர ங! ர் ஙகழழபளவஈரஙஃ.

Subject Code : 17PT44

Title of the paper ! ேடிஈரஙடிணஈ! ெஓஙடு படஈ! ! !

பஓஈஓணஈ!! ழூ வஙாளஆ!

2.: ேடிஈரளவளபஈபுஙடிமபுமஙபதவ பஈ! பஓஓஙர ஙஃ.!

3.: ேளஙடிஙடு த ஓ ப தவ டைடஈ! ன மஙப தவ டைடஈ! ழமவஙர ஙஃ.!

4.: பவ ேடிஈரஙதந ழட ஓழப ளவஈவாஈ! ாடிஙஓஙழா ஓர ஙஃ.!

5.: கு‘ணபாஈ! ாடிநளஅஉ த ந மஈ! ழமஙகழழபளவஈர ஙஃ.!

6.: ேடிழர அஉ த நாஈ! ாதி டிஙநஙிமுடஈ! ாடிஙஓஙழா ஓர ஙஃ.!

Subject Code : 17PTE4A

Title of the paper : ரஙவடளபத ண ! ! !

பஓஈஓணஈ! ழூ வஙாளஆ!

2.: ரஙவடளடஈ! மடிளஙபஈபுடஈ! டு த ஓ த டிட ர ளபவஈ! ெஓஙகழழபளவஈரஙஃ!

3.: ரஙவடளமஙநஈ! மநஈதட ?ரஙவடள ! ர தபபவ ?ரஙவடளளமந சபவ! புஓஙமழமஙகழழபளவஈர ஙஃ.!

4.: ரஙவடளமஙநணஈ! ன ஓமஙடிளவ ளபவஈ! ெதஅடைடஈ! கநஈதட ?குபழர தளபஈ! தபடிவுடஈ! ரஙமடஈ! புஓஙமழெஓஙகஙஏாஙஃ.!

5.: ரஙவடளகஙஓர ந சபவ ?ரஙவடளளஅசபவஈ! ா ஓஙடைடட ர ளபவஈ! ழமஙகழழபளவஈரஙஃ.!

6.: ரஙவடளமஈதமழர வஙடிஆடஈ! ன மஙபவஈ! ா ஓஙடைடஈ! ெஓஙகஙஏாஙஃ.!

7.: ரஙவடளமழ த ஓடிஙணஈ! ழர தணர ளடிஈதாாஈ! ழாஓடஈ! மஓ த நட ர ளபவஈ! ரவளமுபஈ! ழபளவஈரஙஃ.!

Subject Code : 17PTE4B

Title of the paper: மஙஏபஈபுஓவ
5 !

பஓஓணஈ! ழூ வஙாளஆ!

2.: மஙஏபஈபுஓவஈ! லஏ ர ஈரஙடிணஈ! கு‘ணஈ! றநதமாஈ! ர் ஙகழழபளவஈரஙஃ.!

3.: டளகளபவஈ!

பெர ஈரஙுடர் ஓர ஈரஙுடப த அாஙஉபழர உடிெ உா த அா ப தவ ெஓஙகழழபளவஈரஙஃ.!

4.: பவருரி பாதப !பஓர்ரி பாதபடிநா!ூர ஓா ைஅஉ தந ெஔர ண:.!

5.: மஏபாபுஓ தவாா!ாஓ ! –ணபாடிச பூவ ைஆலா அஆறிமுடா! ே ஓஓணா!ழா ஓர ண:.!

5. ரவாவுர ளா! மூ ஓடா!பஓா தநகடிசாபதவன ை காமூா தஆா ைஓஓ தண ூடடா ஆமாூடா ஓதநாா!ழா ஓர ண

DEPARTMENTOF
HISTORY
P.G.

DEPARTMENTOFHISTORY-PG

ProgrammeCode:PH **ProgrammeName:M.A.History**

ProgrammeOutcomes

1. Disseminate in-depth knowledge of thesubject andreflectivethinking.(Global)
2. Empowerthesocialconcernthroughbridgingtheacademicintelligenceandmoraljustice.(National)
3. Sustainthe culturalheritageandethicswith an empatheticview.(National)
4. Theskillto recognizeandarticulatethediversity of human experience, including ethnicity,race, language, sex, gender, as well as political, economic, social, and cultural structures overtimeand space.(Global)
5. Aftercompletionofthiscourseithelpstogrowethicalvaluesamonghistorystudents.(Global)
6. Theygatherknowledgeabout thesocio-cultural heritageofIndiaand theworldaswell. (Global)
7. Thiscoursehelpstogrowintellectualvaluesamonghistorystudentsandtodevelopliberalvaluesamongt hem.(National)

ProgrammeSpecificOutcomes

OncompletionofM.A.Historyprogramme,thestudentswouldbe

1. EligibleforhigherstudiesinPh.D.,MSWandotherprofessionalcoursessuchas B.L.andB.Ed.(National)
2. Capable to apply acquired updated knowledge on research methods and to pursue researchorientedactivities(National)
3. Undertakecompetitiveexaminationsandqualifyexaminationswithconfidenceandgusto.(National)
4. Engage as educators in elementary schools, secondary schools and postsecondary, historicSites and Museumsetc.asa researcher theywillbe associated in severalfieldslike,MuseumsandHistoricalOrganizations,CulturalResourcesManagementandH istoricPreservationetc.(National)
5. Directly engage in different ranks of the Archaeological Survey of India according to theirperformanceslikeasHeritageManager,HistoricbuildingsinspectororconservationOfficer, Museum education Officer etc.(National)

CourseOutcomes

SEMESTER-I

SubjectCode:17PH11

CourseName:HISTORY OFANCIENTINDIA (National)

Uponcompletionofthecourse,thestudentswillbeableto

1. Acquireknowledgeregardingthe primitivelifeand culturalstatusofthe peopleofancientIndia.
2. demonstrateinresearchtopicchoicesand resultingpapers
3. Torecognizeandarticulatethediversityofhumanexperience,includingethnicity,race,language, sex, gender, as well as political, economic, social, and cultural structures over time andspace.
4. Reveal the ability to compare and contrast different processes, modes of thought, and modes ofexpressionfromdifferenthistorical timeperiodsand indifferentgeographicareas.

SubjectCode:17PH12

CourseName: SOCIO-CULTURAL HISTORYOF TAMILNADU(UPTO1565 A. D) (Regional)

Uponcompletionofthecourse,thestudentswillbeableto

1. Understandthearchitectures intheirreligious,regionalandstylisticcontext
2. Haveaclearunderstandingofhowthesimplesocietyandeconomyattainedcomplexformsandhowthey contributed to thedevelopment ofcultural elements inIndia.
3. HaveanacquaintanceonthephilosophypracticeofvariousordersofBhakticultureinancientTamilnadu.

SubjectCode:17PH13

CourseName:DIPLOMATICHISTORYOFEUROPE(1815A.DTO1914A.D) (Global)

Uponcompletionofthecourse,thestudentswillbeableto

1. Gainknowledgeof theFrench Revolution and its impact of Europeancountries.
2. Developunityandpowerthatmakespeoplestrongwhichhasshownin theFrenchrevolutionin 1789 and How the Industrialization had occurred and it's affected socioeconomictransformationof Europe.
3. Grasp the knowledge of the politics of super power among the European countries and howthesenseregardingnationalismandunificationhaddevelopedamongtheEuropeancountrieso n eveof theworld wars.

SubjectCode:17PH14
CourseName: PRINCIPLESAND METHODS OFARCHAEOLOGY (National)

Uponcompletionofthecourse,thestudentswillbeableto

1. Have a better understanding about the early processes for the development of urbanization anddevelop a strong foundation on the basic understanding of the nature, development and value ofarchaeology
2. FamiliarizetothebasicoutlineofhumanevolutionPrehistoryofIndiaand thechangingenvironments of the Quaternary Proficient to understand basic features of various theories andthoughtsused in archaeological interpretations;
3. Formulate a research proposal and decide on appropriate materials and methods of Analysis;presentthefindingsand theprocessof conductingresearchin written andverbalformats.

SEMESTER -II

SubjectCode:17PH21

CourseName:HISTORYOFMEDIEVALINDIA (National)

Uponcompletionofthecourse,thestudentswillbeableto

1. Beawareof theHeritageofHindu Muslimculture.
2. Gainthe knowledge overthe economicreformsofthesultanate.
3. AcquireKnowledgeaboutthearchitecturalstyleandfusion.

SubjectCode:17PH22
CourseName:SOCIO-CULTURALHISTORYOFTAMILNADU(1565A.D–2006A.D) (Regional)

Uponcompletionofthecourse,thestudentswillbeableto

1. CreateadeepandintensefeelingoftheultureofTamilsandloveforthenativerulers.
2. Familiarize on thegrowth of languageand literatureunder theBritish.
3. Acquirethebasicknowledgetothestudentstocarryoutthebasicresearchworksinthefieldof AncientTamilcountry.

SubjectCode:17PH23
Course Name:INTERNATIONALRELATIONS (Global)

Uponcompletionofthecourse,thestudentswillbeableto

1. ComprehendtheknowledgeofdivisionoftheworldaftertheFirstWorldWaramongthesuperpowersofth eworld.
2. ApprehendtheaggressiveforeignpolicyofItalyandGermanyinfluencedtheEuropeancountriesand compelledthem to form allied powers ofthe world.
3. UnderstandPost-wardevelopmentsof Social,PoliticalandEconomic scenariosof theWorld andDecolonizationand theemergenceof thethirdworld.

SubjectCode:17PHE2A
CourseName:PUBLICADMINISTRATIONPAPER-I (Global)

Uponcompletionofthecourse,thestudentswillbeableto

1. Holdthe powerto implementorrecommendprogramchanges.
2. Workinthepublicadministrationfieldthathastheabilitytomakeadirectimpactonthelocal,stateand federalgovernments.
3. UtilizethechancetoHoldaPositioninPoliticalanalystsformajornewsnetworks haveoftenpursuedcareers in publicadministration.

SubjectCode:17PHE2B
CourseName: HUMANRIGHTS (Global)

Uponcompletionofthecourse,thestudentswillbeableto

1. DeveloptheknowledgeonPowerandFunctionoftheCentralandstateHumanRightsCommission.
2. Acquiretheidea of theevolution of Human RightsViolation inIndia.
3. BeacquaintedwiththeHumanRightsActivismandNGO'S.

SEMESTER -III

SubjectCode:17PH31

CourseName:HISTORYOFMODERNINDIA (National)

Uponcompletionofthecourse,thestudentswillbeableto

1. Becomearesponsible citizen ofIndiaand appear in the competitiveexams.
2. BeawareoftheconditionofIndianruralIndebtedness.
3. AcquirewideknowledgeonnewEducationalpolicyandgainwideknowledgeaboutthevariousorganizationson Socialreforms.

SubjectCode:17PH32

Course Name:HISTORICALTHEORIESANDMETHODOLOGY (Global)

Uponcompletionofthecourse,thestudentswillbeableto

1. EnterintoaserviceinacademICs,researchandinotherprofessionalareasofHistory.
2. ApplytoacquireupdatedknowledgeonresearchmethodsandtopurposeresearchorientedactivitIes.
3. Understandthemethodologyofhistoricalwriting.

SubjectCode:17PH33

CourseName: FREEDOM MOVEMENTININDIA (National)

Uponcompletionofthecourse,thestudentswillbeableto

1. TounderstandthevalueofourfreedomfighterandIndependenceanddevelopasenseofPatriotism,co-operationandbelongingness
2. RecognizetheidealsofMahatmaGandhiandthe importanceofnon-violenceinour life.
3. Understandthenature,policiesandadministrationofBritishRuleinIndiaandhelpfultoattendthecompetitiveexam.

SubjectCode:17PHE3A

Course Name:PUBLICADMINISTRATION–PAPER–II (Global)

Uponcompletionofthecourse,thestudentswillbeableto

1. Getanemploymentopportunityincommunications,publictransportationorlegalfields.
2. Have theability to makeadirect impact on thelocal, state andfederalgovernments.
3. ChancetoHoldaPositioninPoliticalanalystsformajornewsnetworkshaveoftenpursuedcareersin publicadministration.

SubjectCode:17PHE3B
CourseName: WOMEN STUDIES (Global)

Uponcompletionofthecourse,thestudentswillbeableto

1. Categorize the basic Concepts & Theories of women studies as well as defining Gender.
2. They are responsive about the violence against the women and governmentprecautionary laws for their safeguard.
3. Analyze key issues of affecting women's Health.
4. Understand about schemes and programmers commissions and committees related to women empowerment.
5. Analyze the various organization and its role to promote the women empowerment.

SEMESTER -IV

SubjectCode:17PH41
CourseName:CONSTITUTIONALHISTORYOFINDIA(1773A.DTO1950A.D) (National)

Uponcompletionofthecourse,thestudentswillbeableto

1. GainknowledgeontheCommunalElectoralSystemandhavedeepinterestinthereservationofunityintegrity and solidarity of ournation.
2. Realizethedutiesand responsibilitiesascitizenofIndia.
3. Receiveguidelinesforcompetitiveexaminations.

SubjectCode:17PH42
Course Name:CONTEMPORARYINDIA (National)

Uponcompletionofthecourse,thestudentswillbeableto

1. UnderstandthewelfareschemesandeducationalpoliciesoftheGovernmentofIndia.
2. Equipthemtobecomeanefficientadministrator.
3. ObtainHelptoappearforcompetitiveexaminations.

SubjectCode:17PH43
CourseName: ARCHIVESKEEPING (National)

Uponcompletionofthecourse,thestudentswillbeableto

1. Identifythedifferencebetweentheresponsibilitiesandactivitiesofarchivistsandrecordsmanagers and understand the influences of the institutional contexts in which documents arecreated,used andretained.
2. Recognizethechangingnatureof thedocument overtimeandtechnology.
3. Madeawareofthevariousprofessionalassociations,theiractivitiesandpublications

SubjectCode:17PH44
Course Name:ARTANDARCHITECTUREOFINDIA (National)

Uponcompletionofthecourse,thestudentswillbeableto

1. Acquire knowledgeofthechronologicalframeworkforthedevelopmentoftheartandarchitectureofIndiafrom IndusValleyCivilizationtoModernperiodwithanemphasisonsacredarchitectureand sculpture.
2. Recognizethevalue of architectureintheirreligious, regional and stylisticcontext
3. Identifythesculpture,architectureandurbanlandscapesfromTamilnaduusingappropriatevocabulary.

DEPARTMENT OF MATHEMATICS

M.PHIL.

DEPARTMENT OF MATHEMATICS

Programme Code: PM **Programme Name: M.Phil. Mathematics**

Programme Outcomes

1. This course improves the standards of research.
2. To acquire advanced knowledge and comprehensive understanding the fundamental principles in respective discipline.
3. To apply knowledge and critically evaluate the concepts and scientific developments to take up any challenge.
4. Employ innovative and environment friendly methods, novel idea to solve complex and challenging societal and environmental issues.

Programme Specific Outcomes

1. To develop research level thinking in the field of pure and applied mathematics.
2. To develop and enhance teaching skills in Mathematics.
3. To develop abstract Mathematical thinking.
4. To write research articles in mathematics and to publish it in reputed journals.

Course Outcomes

Subject Code: 17LM11

Course Name: RESEARCH METHODOLOGY

Upon completion of the course, the students will be able to

1. Classify the types of Research and Objectives of the Research.
2. Discuss Rings, Ideals , Modules, Tensor Product of Module and Tensor of product of algebra.
3. Define Notherian modules, primary decomposition and Artin modules.

Subject Code: 17LM12

Course Name: ADVANCED ANALYSIS

Upon completion of the course, the students will be able to

1. Understand the Topological vector spaces and Metrization.
2. Study baire category theorem, Steinhaus theorem, The open mapping theorem-The Closed graph theorem.
3. Study the Principle of convexity and duality in Banach Spaces

Subject Code: 19LMPD2/ : 19LMPV2

Course Name: DISSERTATION/ VIVA VOICE

Upon completion of the course, the students will be able to

1. Select Research topic, do review and pilot study.
2. Formulate Research design.
3. Draft a final report.

Subject Code: 19LMO1A

Course Name: ADVANCED GRAPH THEORY

Upon completion of the course, the students will be able to

1. Understand the concepts of Graph colorings, Matchings and Independence in Graphs.
2. Study the concepts of Factorization and Decomposition
3. Apply the concept of Labeling of Graphs , Domination ,independent domination and irredundance domination of Graphs.

Subject Code: 19LMO1B

Course Name: FUZZY THEORY

Upon completion of the course, the students will be able to

1. Analyze the concepts of fuzzy sets
2. Understand the various concepts of Fuzzy complements, Fuzzy intersection and Fuzzy numbers
3. Understand various types of Fuzzy Relations.

Subject Code: 19LMO1C

Course Name: HOMOLOGICAL ALGEBRA

Upon completion of the course, the students will be able to

1. Discuss test functions and calculus with distribution.
2. Derive some properties of distributions.
3. Discuss Wiener's theorem, prime number theorem and Renewal equation.

Subject Code: 19LMO1D

Course Name: HOMOLOGICAL ALGEBRA

Upon completion of the course, the students will be able to

1. Discuss Rings and Modules.
2. Discuss Homology and derived functions.
3. Classify $\Omega^0 T$ and $\Omega^0 T$ comparision, derived functors of X , Homological modules and Rings.