

List of Subjects: (Regulation 2017)

SEMESTER I

| Sl.No. | Course code | Course |
|--------|-------------|--|
| 1. | C101 | HS8151-Communicative English |
| 2. | C102 | MA8151- Engineering Mathematics I |
| 3. | C103 | PH8151- Engineering Physics |
| 4. | C104 | CY8151 - Engineering Chemistry |
| 5. | C105 | GE8152- Problem Solving And Python Programming |
| 6. | C106 | GE8152- EngineeringGraphics |
| 7. | C107 | GE 8161- Problem Solving And Python Programming Laboratory |
| 8. | C108 | BS8161 -Physics and Chemistry Laboratory |

SEMESTER II

| Sl.No. | Course code | Course |
|--------|-------------|--|
| 1. | C109 | HS 8251-Technical English |
| 2. | C110 | MA8251- Engineering Mathematics II |
| 3. | C111 | PH8252- Physics for Information Science |
| 4. | C112 | BE8255 - Basic Electrical, Electronics and Measurement Engineering |
| 5. | C113 | IT8201- Information Technology Essentials |
| 6. | C114 | CS8251- Programming in C |
| 7. | C115 | GE82621-Engineering Practices Laboratory |
| 8. | C116 | CS8261- C Programming Laboratory |
| 9. | C117 | IT8211 -Information Technology Essentials Laboratory |

SEMESTER III

| Sl.No. | Course code | Course |
|--------|-------------|--|
| 1. | C201 | MA8351- Discrete Mathematics |
| 2. | C202 | CS8351 - Digital Principles and System Design |
| 3. | C203 | CS8391 - Data Structures |
| 4. | C204 | CS8392 - Object Oriented Programming |
| 5. | C205 | EC8394 -Analog And Digital Communication |
| 6. | C206 | CS8381 - Data Structures Laboratory |
| 7. | C207 | CS8383 - Object Oriented Programming Laboratory |
| 8. | C208 | CS8382- Digital Systems Laboratory |
| 9. | C209 | HS8381- Interpersonal Skills- Listening and Speaking |

SEMESTER IV

| Sl.No. | Course code | Course |
|---------------|--------------------|--|
| 1. | C210 | MA8391 - Probability and Statistics |
| 2. | C211 | CS8491- Computer Architecture |
| 3. | C212 | CS8492 – Database Management Systems |
| 4. | C213 | CS8451 - Design and Analysis of Algorithms |
| 5. | C214 | CS8493 – Operating Systems |
| 6. | C215 | GE8291 – Environmental Science and Engineering |
| 7. | C216 | CS8481- Database Management Systems Laboratory |
| 8. | C217 | CS8461– Operating Systems Laboratory |
| 9. | C218 | HS8461- Advanced Reading and Writing |

SEMESTER V

| Sl.No. | Course code | Course |
|---------------|--------------------|---|
| 1. | C301 | MA8551-Algebra and Number Theory |
| 2. | C302 | CS8591-Computer Networks |
| 3. | C303 | EC8691-Microprocessors and Microcontrollers |
| 4. | C304 | IT8501-Web Technology |
| 5. | C305 | CS8494-Software Engineering |
| 6. | C306 | Open Elective-I |
| 7. | C307 | EC8681-Microprocessors and MicrocontrollersLaboratory |
| 8. | C308 | CS8581-Networks Laboratory |
| 9. | C309 | IT8511-Web Technology Laboratory |

SEMESTER VI

| Sl.No. | Course code | Course |
|---------------|--------------------|---|
| 1. | C310 | IT8601- Computational Intelligence |
| 2. | C311 | CS8592- Object Oriented Analysis And Design |
| 3. | C312 | IT8602- Mobile Communication |
| 4. | C313 | CS8091- Big Data Analytics |
| 5. | C314 | CS8092-Computer Graphics and Multimedia |
| 6. | C315 | Professional Elective I |
| 7. | C316 | CS8662 - Mobile Application Development Laboratory |
| 8. | C317 | CS8582 - Object Oriented Analysis And Design Laboratory |
| 9. | C318 | IT8611 - Mini Project |

SEMESTER I

| COMMUNICATIVE ENGLISH : C101 | |
|-------------------------------------|--|
| C101.1 | Understand clearly, confidently, comprehensibly, and communicate with one or many listeners using appropriate communicative strategies |
| C101.2 | Analyzing cohesively and coherently and flawlessly avoiding grammatical errors, using a wide vocabulary range, organizing their ideas logically on a topic |
| C101.3 | Create different genres of texts adopting various reading strategies |
| C101.4 | Understand different spoken discourses and different accents |
| C101.5 | Understand intonations of the speaker while communicating as well as development of creative writing. |

| ENGINEERING MATHEMATICS I : C102 | |
|---|--|
| C102.1 | Use both the limit definition and rules of differentiation to differentiate functions. Apply differentiation to solve maxima and minima problems. |
| C102.2 | Evaluate integrals both by using Riemann sums and by using the Fundamental Theorem of Calculus. |
| C102.3 | Apply integration to compute multiple integrals, area, volume, integrals in polar coordinates, in addition to change of order and change of variables. |
| C102.4 | Evaluate integrals using techniques of integration, such as substitution, partial fractions and integration by parts. |
| C102.5 | Apply various techniques in solving differential equations. |

| ENGINEERING PHYSICS : C103 | |
|-----------------------------------|--|
| C103.1 | Gain knowledge on the properties of matter and its applications. |
| C103.2 | Understand the concepts of waves and optical devices and its applications. |
| C103.3 | Analyze the thermal properties of materials and their applications |
| C103.4 | To get knowledge about advanced physics concepts of quantum theory |
| C103.5 | Achieve the knowledge about various crystals structures and its growth techniques. |

| ENGINEERING CHEMISTRY : C104 | |
|-------------------------------------|--|
| C104.1 | Gain knowledge on the water quality parameters. |
| C104.2 | Understand the types of catalysis & Identify the applications of adsorption. |
| C104.3 | Analyse the types of phase in a system & various alloys |
| C104.4 | Evaluate the characteristics of various fuels & its applications. |
| C104.5 | Achieve the knowledge about various energy sources & its applications. |

| PROBLEM SOLVING AND PYTHON PROGRAMMING : C105 | |
|--|---|
| C105.1 | Develop algorithmic solutions to simple computational problems |
| C105.2 | Read, write, execute by hand simple Python programs. |
| C105.3 | Decompose a Python program into functions. |
| C105.4 | Represent compound data using Python lists, tuples, and dictionaries. |
| C105.5 | Read and write data from/to files in Python Programs. |

| ENGINEERING GRAPHICS: C106 | |
|-----------------------------------|---|
| C106.1 | Effectively understand the practical applications of conics, special curves and freehand sketching. |
| C106.2 | Implement the drawing skills in points, lines and planes. |
| C106.3 | Enhance the solid projections in pyramid, prisms, cylinder and cones. |
| C106.4 | Understand clearly the concepts of sectioning and development of solids in pyramid, prisms, cylinder and cones. |
| C106.5 | Improve the engineering knowledge in frustrum & truncated solids, visual ray methods. |

| PROBLEM SOLVING AND PYTHON PROGRAMMING : C107 | |
|--|--|
| C107.1 | Develop algorithmic solutions to simple computational problems, Write, test, and debug simple Python programs. |
| C107.2 | Read, write, execute by handle simple Python programs, Implement Python programs with conditionals and loops. |
| C107.3 | Develop Python programs step-wise by defining functions and calling them. |
| C107.4 | Use Python lists, tuples, dictionaries for representing compound data. |
| C107.5 | Read and write data from/to files in Python |

| PHYSICS AND CHEMISTRY LABORATORY : C108 | |
|--|---|
| C108.1 | Analyse the characteristics of engineering materials. |
| C108.2 | Find out the physical properties of matter. |
| C108.3 | Assess the water quality parameter. |
| C108.4 | Analyse the pH of aqueous solutions. |
| C108.5 | Gain knowledge on chemical properties of liquids. |

SEMESTER II

| TECHNICAL ENGLISH : C109 | |
|---------------------------------|--|
| C109.1 | Speak convincingly, express their opinions clearly, initiate a discussion, negotiate, and argue using appropriate communicative strategies. |
| C109.2 | Recognize to frame effective types of writing such as narration, description, exposition and argument as well as creative, critical, analytical and evaluative writing to determine their writing skill. |
| C109.3 | Attribute to read different genres of texts, infer implied meanings and critically analyze and evaluate them for ideas as well as for method of presentations. |
| C109.4 | Listen different spoken excerpts critically and infer unspoken and implied meanings |
| C109.5 | Analyze to participant in a group discussion and understanding technical articles. |

| MATHEMATICS II: C110 | |
|-----------------------------|--|
| C110.1 | Evaluate the Eigen values and eigenvectors, Diagonalization of a matrix, Symmetric matrices, Positive definite matrices and similar matrices |

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|--------|---|
| C110.2 | Understand the vector differentiation, line, surface and volume integrals and theorems involving them. |
| C110.3 | Apply the analytic functions and its properties, conformal mapping and its applications. |
| C110.4 | Apply the concepts of complex integration. |
| C110.5 | Analysis the concept of Laplace transform and its properties, inverse Laplace transform to solve linear differential equations. |

| PHYSICS FOR INFORMATION SCIENCE : C111 | |
|---|---|
| C111.1 | Remember the classical and quantum electron theories and energy band structures. |
| C111.2 | Analyze the various types of semiconductor and its applications in various devices. |
| C111.3 | Understand the magnetic properties of materials and their applications in data storage. |
| C111.4 | Create the concept of optical materials and its applications. |
| C111.5 | Remember the quantum structures and their applications in carbon electronics. |

| BASIC ELECTRICAL, ELECTRONICS AND MEASUREMENT ENGINEERING : C112 | |
|---|--|
| C112.1 | Discuss the essentials of electric circuits and analysis. |
| C112.2 | Expose the basic operation of electric machines and transformers |
| C112.3 | Understand the renewable sources and common domestic loads. |
| C112.4 | Explain the operation and applications of electronic circuits |
| C112.5 | Describe the measurement and metering for electric circuits. |

| INFORMATION TECHNOLOGY ESSENTIALS: C113 | |
|--|---|
| C115.1 | Design the website creation using database. |
| C115.2 | Design and deploy the website by using PHP and MYSQL. |
| C115.3 | Create simple network design application using network devices. |
| C115.4 | Describe the basics of mobile communication. |
| C115.5 | Design the various applications related to IT. |

| PROGRAMMING IN C : C114 | |
|--------------------------------|--|
| C114.1 | Solve simple programs in C to solve basic constructs. |
| C114.2 | Implement sorting and searching programs using arrays and strings. |
| C114.3 | Develop and implement applications in C using functions and pointers. |
| C114.4 | Design simple applications in C using structures. |
| C114.5 | Design and develop an applications using sequential and random access file processing. |

| ENGINEERING PRACTICE LABORATORY : C115 | |
|---|---|
| C115.1 | Plumbing and carpentry application areas regard to pipeline joints, household fittings, water supply and sewage works, joints in roofs, doors, windows and furniture. |
| C115.2 | Analyzing the engineering knowledge through welding, machining, sheet metal categories in gas welding, facing, turning, forming and bending operations. |
| C115.3 | Understanding the assembly works on study of pump, a/c and demonstration works on Smithy, foundry and fitting operations. |
| C115.4 | Perceiving knowledge on various basic in electrical engineering in simple domestic wiring circuits and relationship between the various electrical parameters |
| C115.5 | Comparing and analyzing the performance of basic electronic devices and Build a simple electronic circuits in Printed Circuit Boards |

| C PROGRAMMING LABORATORY : C116 | |
|--|---|
| C116.1 | Develop C Programs for simple applications making use of control statement. |
| C116.2 | Ability to implement arrays and string to solve real time problems. |
| C116.3 | Develop C Programs involving functions, recursion, pointers. |
| C116.4 | Implement application by using structures. |
| C116.5 | Design applications using sequential and random access file processing. |

| INFORMATION TECHNOLOGY ESSENTIALS LABORATORY:C119 | |
|--|---|
| C119.1 | To design interactive websites using basic HTML tags, different styles, links and with all. |
| C119.2 | To create client side and server side programs using PHP. |
| C119.3 | Create applications with PHP connected to database. |
| C119.4 | Implement the technologies behind computer networks and mobile communication |
| C119.5 | Create a personal information system program. |

SEMESTER III

| MA8351- DISCRETE MATHEMATICS (C201) | |
|--|---|
| C201.1 | Have knowledge of the concepts needed to test the logic of a program |
| C201.2 | Be aware of the counting principles. |
| C201.3 | Have an understanding in identifying structures on many levels. |
| C201.4 | Be exposed to concepts and properties of algebraic structures such as groups, rings and fields. |
| C201.5 | Be aware of a class of functions which transform a finite set into another finite set which relates to input and output functions in computer science |

| CS8351 - DIGITAL PRINCIPLES AND SYSTEM DESIGN(C202) | |
|--|---|
| C202.1 | Simply Boolean functions using K-Map |
| C202.2 | Design & Analyze combinatorial & sequential circuit |
| C202.3 | Design Analyze & write HDL code for synchronous sequential circuits |

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|---------------|--|
| C202.4 | Design Analyze & write HDL code for asynchronous sequential circuits |
| C202.5 | Implement design using programmable logic devices |

| CS8391 - DATA STRUCTURES (C203) | |
|--|--|
| C203.1 | Explain the fundamental data structures concepts and ADT |
| C203.2 | Summarize the various linear data structure operations and applications |
| C203.3 | Discuss about Tree operations and applications |
| C203.4 | Discuss about Graphs operations and applications |
| C203.5 | Demonstrate the sorting, searching and hashing techniques in data structures |

| CS8392 - OBJECT ORIENTED PROGRAMMING (C204) | |
|--|--|
| C204.1 | Explain the concepts of Object Oriented Programming and the fundamentals of java programming |
| C204.2 | Explain the principles of inheritance and interfaces |
| C204.3 | Discuss the concept of exception handling mechanism and I/O streams |
| C204.4 | Use the concept of multithreading and generics classes in Java |
| C204.5 | Apply the AWT and Swing concepts to build GUI application |

| EC8394 - ANALOG AND DIGITAL COMMUNICATION (C205) | |
|---|--|
| C205.1 | Apply analog communication techniques. |
| C205.2 | Use data and pulse communication techniques. |
| C205.3 | Apply digital communication techniques. |
| C205.4 | Analyze Source and Error control coding. |
| C205.5 | Utilize multi-user Radio communication. |

| CS8381 - DATA STRUCTURES LABORATORY (C206) | |
|---|--|
| C206.1 | Compute Array implementation of stack, Queue and List ADTs using C program |
| C206.2 | Demonstrate Linked list implementation of list, Stack and Queue ADTs |
| C206.3 | Manipulate Binary trees, Binary search Trees and AVL tree and its operations |
| C206.4 | Compute graph representation and Traversal algorithms |
| C206.5 | Examine searching, sorting and hashing algorithms |

| CS8383 - OBJECT ORIENTED PROGRAMMING LABORATORY (C207) | |
|---|--|
| C207.1 | To understand and apply the concepts of classes, Packages, interface & inheritance |
| C207.2 | To develop java program for practicing exception handling of files |
| C207.3 | To develop application using generic programming & event handling |

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|---------------|---|
| C207.4 | To built software development skills in java |
| C207.5 | To develop a java programfor real world application |

| CS8382- DIGITAL SYSTEMS LABORATORY (C208) | |
|--|--|
| C208.1 | Apply Boolean simplification techniques to construct combinational logic circuits. |
| C208.2 | Build combinational logic circuits to performarithmetic operations. |
| C208.3 | Implement combinational circuits using MSI devices. |
| C208.4 | Construct Sequential circuitslike registers and counters. |
| C208.5 | Simulate combinational and sequential circuits using HDL. |

| HS8381- INTERPERSONAL SKILLS- LISTENING AND SPEAKING (C209) | |
|--|--|
| C209.1 | Acquire the listening skills to lead successful carreer in their work place. |
| C209.2 | Attain articulation knowledge on native speaker-like intonation rhythm. |
| C209.3 | Identify appropriate vocabulary and correct words to reply others. |
| C209.4 | Understand key skills and behavior required to facilitate a group discussion |
| C209.5 | Participate confidently and appropriately in presentation |

SEMESTER IV

| MA8391 - PROBABILITY AND STATISTICS (C210) | |
|---|--|
| C210.1 | Identify the functions of discrete andcontinuous randomvariables, moments and moment generating function |
| C210.2 | Solve problems in marginal conditional distribution, using the concepts of correlation, |
| C210.3 | Apply the concept of testing of hypothesis for small and large samples in real life problems. |
| C210.4 | ApplyANOVA test to design of experiments. |
| C210.5 | Have the notion of sampling distributionsand statistical techniques used in engineering and management problems. |

| CS8491- COMPUTER ARCHITECTURE (C211) | |
|---|---|
| C211.1 | Discuss the basic components of computers, operations andinstructions |
| C211.2 | Outlinethecircuitsrequiredtoperformoperations in Arithmetic Logic Unit |
| C211.3 | Describe the importance of basic datapath, pipelined executions and hazards |
| C211.4 | Identifyparallelprocessingarchitectureswithinstructionlevelparallelism,multicore processing and graphics processing units |
| C211.5 | Explain the performance of memorysystems and input/output system |

| CS8492 – DATABASE MANAGEMENT SYSTEMS (C212) | |
|--|---|
| C212.1 | Classify the modern and futuristic database applications based on size and complexity |
| C212.2 | Map ER model to Relational model to perform database design effectively. |
| C212.3 | Write queries using normalization criteria and optimize queries |
| C212.4 | Compare and contrast various indexing strategies in different database systems |
| C212.5 | Appraise how advanced databases differ from traditional databases. |

| CS8451 - DESIGN AND ANALYSIS OF ALGORITHMS(C213) | |
|---|--|
| C213.1 | Understand different analysis techniques for various problems |
| C213.2 | Understand different problems under divide and conquer methodology and brute force |
| C213.3 | Under and analyze various problems under greedy algorithm and dynamic programming |
| C213.4 | Understand and analyze the problem of iterative algorithms |
| C213.5 | Analyzing the limitation of various algorithmic methodologies |

| CS8493 – OPERATING SYSTEMS(C214) | |
|---|--|
| C214.1 | Explain the basic concepts and functions of Operating Systems. |
| C214.2 | Explain various threading models, process synchronization and deadlocks. |
| C214.3 | Analyze the performance of various CPU scheduling algorithms. |
| C214.4 | Discuss various memory management schemes. |
| C214.5 | Explain I/O management and file systems. |

| GE291 – ENVIRONMENTAL SCIENCE AND ENGINEERING (C215) | |
|---|---|
| C215.1 | Explain the values, threats and conservation of biodiversity and classify various ecosystems. |
| C215.2 | Identify and implement technological and economical solution to environmental pollution. |
| C215.3 | Develop the knowledge on various natural resources, their causes and their efforts. |
| C215.4 | Explain various environmental acts and to explain various disaster management. |
| C215.5 | Relate population growth and environment and the role of IT in environment and human health. |

| CS8481- DATABASE MANAGEMENT SYSTEMS LABORATORY(C216) | |
|---|---|
| C216.1 | Use typical data definitions and manipulation commands. |

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|---------------|---|
| C216.2 | Design applications to test Nested and Join Queries |
| C216.3 | Implement simple applications that use Views |
| C216.4 | Implement applications that require a Front-end Tool |
| C216.5 | Critically analyze the use of Tables, Views, Functions and Procedures |

| CS8461– OPERATING SYSTEMS LABORATORY(C217) | |
|---|--|
| C217.1 | Examine various Unix commands and shell programming |
| C217.2 | Point out the best CPU scheduling algorithm for a given problem instance |
| C217.3 | Demonstrate Semaphores, Deadlock avoidance and detection Algorithms |
| C217.4 | Operate on processes, Threads and implement IPC |
| C217.5 | Examine various Memory Management and File Management techniques |

| HS8461- ADVANCED READING AND WRITING(C218) | |
|---|---|
| C218.1 | Built vocabulary by reading, use sentences to determine meaning and point of view. |
| C218.2 | Develop the skills of creative and critical thinking as well as pursue independent research on a focused topic. |
| C218.3 | Apply analytical and evaluative skills appropriate to the subject, with an understanding of the implications and the context of their research. |
| C218.4 | Develop their interpersonal skills to achieve goals of a company. |
| C218.5 | Increase understanding and recall of what is read including facts and importance of the main idea. |

SEMESTER V

| MA8551-ALGEBRA AND NUMBER THEORY (C301) | |
|--|---|
| C301.1 | Apply the basic notions of groups, rings, fields which will then be used to solve related problems. |
| C301.2 | Explain the fundamental concepts of advanced algebra and their role in modern mathematics and applied contexts. |
| C301.3 | Demonstrate accurate and efficient use of advanced algebraic techniques. |
| C301.4 | Demonstrate their mastery by solving non - trivial problems related to the concepts, and by proving simple theorems about the, statements proven by the text. |
| C301.5 | Apply integrated approach to number theory and abstract algebra, and provide a firm basis for further reading and study in the subject. |

| CS8591-COMPUTER NETWORKS (C302) | |
|--|---|
| C302.1 | Understand the basic layers and its functions in computer networks and evaluate the performance of a network. |
| C302.2 | Understand the basics of how data flows from one node to another |
| C302.3 | Analyze and design routing algorithms. |
| C302.4 | Design protocols for various functions in the network. |
| C302.5 | Understand the working of various application layer protocols |

| EC8691-MICROPROCESSORS AND MICROCONTROLLERS (C303) | |
|---|--|
| C303.1 | Understand about the architecture of 8086 microprocessor and Demonstrate the programs on 8086 microprocessor |
| C303.2 | Illustrate the Bus structure and communication of microprocessor |
| C303.3 | Illustrate the design aspects of I/O and memory interfacing circuits |
| C303.4 | Explain about the architecture of 8051 Microcontroller and Demonstrate the programs on 8051 Microcontroller |
| C303.5 | Develop a simple 8051 microcontroller based systems |

| IT8501-WEB TECHNOLOGY (C304) | |
|-------------------------------------|---|
| C304.1 | Design Simple Web pages using markup languages like HTML and XHTML |
| C304.2 | Create dynamic web pages using DHTML and javascript that is easy to navigate and use |
| C304.3 | Program server side web pages that have to process request from the client side web pages |
| C304.4 | Represent web data using XML and develop web pages using JSP |
| C304.5 | Understand various web services and how these web services interact |

| CS8494-SOFTWARE ENGINEERING (C305) | |
|---|---|
| C305.1 | Identify the key activities in managing project and compare different process model |
| C305.2 | To learn Concepts of requirements engineering and analysis modeling |
| C305.3 | Apply systematic procedure for software design and deployment |
| C305.4 | Compare and contrast the various testing and maintenance |
| C305.5 | Manage project schedule, estimate project cost and effort required |

| OAN551 Sensors and Transducers [Open Elective-I] (C306) | |
|--|--|
| C306.1 | Understand the concepts of measurement technology. |
| C306.2 | Expertise in various calibration techniques and signal types for sensors. |
| C306.3 | Apply the various sensors in the Automotive and Mechatronics applications. |
| C306.4 | Study the basic principles of various smart sensors. |
| C306.5 | Implement the DAQ systems with different sensors for real time applications. |

| EC8681-MICROPROCESSORS AND MICROCONTROLLERS LABORATORY (C307) | |
|--|--|
| C307.1 | To Write ALP Programmes for fixed and Floating Point and Arithmetic operations |
| C307.2 | To Interface different I/Os with processor |
| C307.3 | To Generate waveforms using Microprocessors |
| C307.4 | To Execute Programs in 8051 |
| C307.5 | To Explain the difference between simulator and Emulator |

| CS8581-NETWORKS LABORATORY (C308) | |
|--|--|
| C308.1 | Implement various protocols using TCP and UDP. |
| C308.2 | Compare the performance of different transport layer protocols. |
| C308.3 | Use simulation tools to analyze the performance of various network protocols |
| C308.4 | Analyze various routing algorithms. |
| C308.5 | Implement error correction codes. |

| IT8511-WEB TECHNOLOGY LABORATORY (C309) | |
|--|---|
| C309.1 | Design Web pages using HTML/DHTML and style sheets |
| C309.2 | Develop user interfaces using Java frames and applets |
| C309.3 | Design and Implement database applications |
| C309.4 | Construct dynamic web pages using serverside scripting. |
| C309.5 | Experiment with Client Server applications. |

SEMESTER VI

| IT8601- COMPUTATIONAL INTELLIGENCE(C310) | |
|---|---|
| C310.1 | Identify problems that are amenable to solution by AI methods. |
| C310.2 | Recognize appropriate AI methods to solve a given problem. |
| C310.3 | Discuss a given problem in the language/framework of different AI methods. |
| C310.4 | Develop basic AI algorithms. |
| C310.5 | Model an empirical evaluation of different algorithms on a problem formalization, and state the conclusions that the evaluation supports. |

| CS8592- OBJECT ORIENTED ANALYSIS AND DESIGN(C311) | |
|--|--|
| C311.1 | Express software design with UML diagrams |
| C311.2 | Design software applications using OO concepts. |
| C311.3 | Identify various scenarios based on software requirements |
| C311.4 | Transform UML based software design into pattern based design using design |
| C311.5 | Understand the various testing methodologies for OO software |

| IT8602- MOBILE COMMUNICATION(C312) | |
|---|--|
| C312.1 | Explain the basics of mobile telecommunication system |
| C312.2 | Illustrate the generations of telecommunication systems in wireless network |
| C312.3 | Understand the architecture of Wireless LAN technologies |
| C312.4 | Determine the functionality of network layer and Identify a routing protocol for a given Ad hoc networks |
| C312.5 | Explain the functionality of Transport and Application layer |

| CS8091- BIG DATA ANALYTICS(C313) | |
|---|--|
| C313.1 | Work with big data tools and its analysis techniques. |
| C313.2 | Analyze data by utilizing clustering and classification algorithms. |
| C313.3 | Learn and apply different mining algorithms and recommendation systems for large |
| C313.4 | Perform analytics on data streams |
| C313.5 | Learn NoSQL database and management |

| CS8092-COMPUTER GRAPHICS AND MULTIMEDIA(C314) | |
|--|--|
| C314.1 | Apply Illumination and color models and apply clipping techniques to graphics. |
| C314.2 | Design two dimensional graphics and apply two dimensional transformations. |
| C314.3 | Design three dimensional graphics.Apply three dimensional transformations. |
| C314.4 | Understood Different types ofMultimedia File Format |
| C314.5 | Understand the basic Hypermedia featuresand design Basic 3d Scenes using Blender |

| CS8662 - MOBILE APPLICATION DEVELOPMENT LABORATORY(C316) | |
|---|--|
| C316.1 | Design a native application using GUI components and Layouts. |
| C316.2 | Develop an application using Event listener functions and graphical primitives. |
| C316.3 | Construct an application using databases and notification manager. |
| C316.4 | Develop an application using RSS feed, Internal/External storage , SMS, multi threading, and location identification using GPS in an application |
| C316.5 | Analyze and discover new applications in your own for simple needs. |

| CS8582 - OBJECT ORIENTED ANALYSIS AND DESIGN LABORATORY(C317) | |
|--|---|
| C317.1 | PerformOO analysis and design for a given problemspecification. |
| C317.2 | Identify and map basic software requirements in UML mapping |
| C317.3 | Improve the software quality using design patterns. |
| C317.4 | To explain the rationale behind applying specific design patterns |
| C317.5 | Test the compliance ofthe softwarewith the SRS |

| IT8611 - MINI PROJECT(C318) | |
|------------------------------------|---|
| C318.1 | Identify the problemby applying acquired knowledge. |
| C318.2 | Analyze and categorize executable project modules after considering risks. |
| C318.3 | Choose efficient tools fordesigning project modules. |
| C318.4 | Combine all the modules through effective teamwork after efficient testing. |
| C318.5 | Elaborate the completed task and compile the project report. |