PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO1	To enable graduates to pursue higher education and research, or have a successful career in industries associated with Computer Science and Engineering, or as entrepreneurs. To ensure that graduates will have the ability and attitude to adapt to emerging technological changes.

PROGRAM OUTCOMES (POs) AND PROGRAM SPECIFIC OUTCOMES (PSOs) OF THE INSTITUTE

PROGRAM OUTCOMES (POs)

PO1	Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.
PO2	Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3	Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO4	Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO5	Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
PO6	The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need

	for sustainable development.
PO8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO11	Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO12	Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES (PSOs) OF COMPUTER SCIENCE AND ENGINEERING

PSO1	To analyze, design and develop computing solutions by applying foundational concepts of Computer Science and Engineering.
PSO2	Strong theoretical foundation leading to excellence and excitement towards research, to provide elegant solutions to complex problems.
PSO3	To adapt to emerging Information and Communication Technologies (ICT) to innovate ideas and solutions to existing/novel problems.

LIST OF COURSE FOR REGULATION 2017

1ST SEMESTER			
S.NO	**COURSE CODE**	**SUBJECT CODE**	**SUBJECT NAME**
1	C101	HS8151	COMMUNICATIVE ENGLISH
2	C102	MA8151	ENGINEERING MATHEMATICS – I
3	C103	PH8151	ENGINEERING PHYSICS
4	C104	CY8151	ENGINEERING CHEMISTRY
5	C105	GE8151	PROBLEM SOLVING AND PYTHON PROGRAMMING
6	C106	GE8152	ENGINEERING GRAPHICS
7	C107	GE8161	PROBLEM SOLVING AND PYTHON PROGRAMMING LABORATORY
8	C108	BS8161	PHYSICS AND CHEMISTRY LABORATORY
IIND SEMESTER			
9	C109	HS8251	TECHNICAL ENGLISH
10	C110	MA8251	ENGINEERING MATHEMATICS – II
11	C111	PH8252	PHYSICS FOR INFORMATION SCIENCE
12	C112	BE8255	BASIC ELECTRICAL, ELECTRONICS AND MEASUREMENT ENGINEERING
13	C113	GE8291	ENVIRONMENTAL SCIENCE AND ENGINEERING
14	C114	CS8251	PROGRAMMING IN C
15	C115	GE8261	ENGINEERING PRACTICES LABORATORY
16	C116	CS8261	C PROGRAMMING LABORATORY
IIIRD SEMESTER			
17	C201	MA8351	DISCRETE MATHEMATICS

18	C202	CS8351	DIGITAL PRINCIPLES AND SYSTEM DESIGN
19	C203	CS8391	DATA STRUCTURES
20	C204	CS8392	OBJECT ORIENTED PROGRAMMING
21	C205	EC8395	COMMUNICATION ENGINEERING
22	C206	CS8381	DATA STRUCTURES LABORATORY
23	C207	CS8383	OBJECT ORIENTED PROGRAMMING LABORATORY
24	C208	CS8382	DIGITAL SYSTEMS LABORATORY
25	C209	HS8381	INTERPERSONAL SKILLS/LISTENING &SPEAKING
IVTH SEMESTER			
26	C210	MA8402	PROBABILITY AND QUEUEING THEORY
27	C211	CS8491	COMPUTER ARCHITECTURE
28	C212	CS8492	DATABASE MANAGEMENT SYSTEMS
29	C213	CS8451	DESIGN AND ANALYSIS OF ALGORITHMS
30	C214	CS8493	OPERATING SYSTEMS
31	C215	CS8494	SOFTWARE ENGINEERING
32	C216	CS8481	DATABASE MANAGEMENT SYSTEMS LABORATORY
33	C217	CS8461	OPERATING SYSTEMS LABORATORY
34	C218	HS8461	ADVANCED READING AND WRITING
VTH SEMESTER			
34	C301	MA8551	ALGEBRA AND NUMBER THEORY
35	C302	CS8591	COMPUTER NETWORKS

36	C303	EC8691	MICROPROCESSORS AND MICROCONTROLLERS
37	C304	CS8501	THEORY OF COMPUTATION
38	C305	CS8592	OBJECT ORIENTED ANALYSIS AND DESIGN
39	C306	OCE552	GEOGRAPHICAL INFORMATION SYSTEM
40	C307	EC8681	MICROPROCESSORS AND MICROCONTROLLERS LABORATORY
41	C308	CS8582	OBJECT ORIENTED ANALYSIS AND DESIGN LABORATORY
42	C309	CS8581	NETWORKS LABORATORY
VITH SEMESTER			
43	C310	CS8651	INTERNET PROGRAMMING
44	C311	CS8691	ARTIFICIAL INTELLIGENCE
45	C312	CS8601	MOBILE COMPUTING
46	C313	CS8602	COMPILER DESIGN
47	C314	CS8603	DISTRIBUTED SYSTEMS
48	C315	IT8076	SOFTWARE TESTING
49	C316	CS8661	INTERNET PROGRAMMING LABORATORY
50	C317	CS8662	MOBILE APPLICATION DEVELOPMENT LABORATORY
51	C318	CS8611	MINI PROJECT
52	C319	HS8581	PROFESSIONAL COMMUNICATION
VIITH SEMESTER			
53	C401	MG8591	PRINCIPLES OF MANAGEMENT
54	C402	CS8792	CRYPTOGRAPHY AND NETWORK SECURITY
55	C403	CS8791	CLOUD COMPUTING

56	C404	CS8079	HUMAN COMPUTER INTERACTION
57	C405	IT8075	SOFTWARE PROJECT MANAGEMENT
58	C406	CS8711	CLOUD COMPUTING LABORATORY
59	C407	IT8761	SECURITY LABORATORY
VIIITH SEMESTER			
60	C408	CS8080	INFORMATION RETRIEVAL TECHNIQUES
61	C409	GE8076	PROFESSIONAL ETHICS IN ENGINEERING
62	C410	CS8811	PROJECT WORK

COURSE OUTCOMES FOR COMPUTER SCIENCE AND ENGINEERING

REGULATION 2017

PROGRAMME:COMPUTER SCIENCE AND ENGINEERING	DEGREE:U.G	ACADEMIC YEAR : 2019-2020	SEMESTER: I

S.NO	YEAR/ SEM	COURSE NAME	COURSE OUTCOMES the students will be able to understand the		KNOWLEDGE LEVEL
1.	I-YEAR I-SEM	HS8151-COMMUNICATIVE ENGLSH	C101.1	To use appropriate words in a professional context	K2
			C101.2	To gain understanding of basic grammatical structures and use them in right context.	K2
			C101.3	To read and infer the denotative and connotative meanings of technical texts	K2
			C101.4	To write definitions, descriptions, narrations and essays on various topics	K6
2	I-YEAR I-SEM	MA8151-ENGINEERING MATHEMATICS – I	C102.1	Use both the limit definition and rules of differentiation to differentiate functions.	K3
			C102.2	Apply differentiation to solve maxima and minima problems.	K3

			C102.3	Evaluate integrals both by using Riemann sums and by using the Fundamental Theorem of Calculus. Apply integration to compute multiple integrals, area, volume, integrals in polar coordinates, in addition to change of order and change of variables.	K5
			C102.4	Evaluate integrals using techniques of integration, such as substitution, partial fractions and integration by parts.	K3
			C102.5	Determine convergence/ divergence of improper integrals and evaluate convergent improper integrals. Apply various techniques.	K3
3	I-YEAR I-SEM	PH3151-ENGINEERING PHYSICS	C103.1	Understand the importance of mechanics.	K2
			C103.2	Express their knowledge in electromagnetic waves.	K2
			C103.3	Demonstrate a strong foundational knowledge in oscillations, optics and lasers.	K2
			C103.4	Understand the importance of quantum physics	K2
			C103.5	Comprehend and apply quantum mechanical principles towards the formation of energy	K2
4	I-YEAR I-SEM	CY3151-ENGINEERING CHEMISTRY	C104.1	To infer the quality of water from quality parameter data and propose suitable treatment methodologies to treat water.	K2
			C104.2	To identify and apply basic concepts of nano science and nano technology in designing the synthesis of nano-materials for engineering and technology applications.	K1
			C104.3	To apply the knowledge of phase rule and composites for material selection requirements.	K2
			C104.4	To recommend suitable fuels for engineering processes and applications.	K2

			C104.5	To recognize different forms of energy resources and apply them for suitable applications in energy sectors.	K2
5	I-YEAR I-SEM	GE3151- PROBLEM SOLVING AND PYTHON PROGRAMMING	C105.1	Develop algorithmic solutions to simple computational problems.	K3
			C105.2	Develop and execute simple Python programs.	K3
			C105.3	Write simple Python programs using conditionals and loops for solving problems.	K3
			C105.4	Decompose a Python program into functions.	K2
			C105.5	Represent compound data using Python lists, tuples, dictionaries etc.	K2
			C105.6	Read and write data from/to files in Python programs.	K2
6	I YEAR I-SEM	GE8152-ENGINEERING GRAPHICS	C106.1	Familiarize with the fundamentals and standards of Engineering graphics	K4
			C106.2	Perform freehand sketching of basic geometrical constructions and multiple views of objects	K3
			C106.3	Project orthographic projections of lines and plane surfaces	K4
			C106.4	Draw projections and solids and development of surfaces	K3
			C106.5	Visualize and to project isometric and perspective sections of simple solids	K4
7	I-YEAR I-SEM	GE8161-PROBLEM SOLVING AND PYTHON PROGRAMMING LABORATORY	C107.1	Write, test, and debug simple Python programs	K2
			C107.2	Implement Python programs with conditionals and loops.	K2
			C107.3	Develop Python programs step-wise by defining functions and calling them	K2
			C107.4	Use Python lists, tuples, dictionaries for representing compound data.	K3
			C107.5	Read and write data from/to files in Python.	K2

8.	I-YEAR I-SEM	BS8161- PHYSICS AND CHEMISTRY LABORATORY	C108.1	To analyse the quality of water samples with respect to their acidity, alkalinity, hardness and DO.	K3
			C108.2	To determine the amount of metal ions through volumetric and spectroscopic techniques	K5
			C108.3	To analyse and determine the composition of alloys.	K5
			C108.4	To learn simple method of synthesis of nano particles	K5
			C108.5	To quantitatively analyse the impurities in solution by electro analytical techniques	K5

PROGRAMME:ELECTRONICS AND COMMUNICATION ENGINEERING	**DEGREE:U.G**	**ACADEMIC YEAR : 2019-2020**	**SEMESTER: II**

S.NO	**YEAR/ SEM**	**COURSE NAME**	**COURSE OUTCOMES the students will be able to understand the**		**KNOWLEDGE LEVEL**
1.	I-YEAR II-SEM	HS8251- TECHNICAL ENGLISH	C109.1	Read technical texts and write area- specific texts effortlessly	K2
			C109.2	Listen and comprehend lectures and talks in their area of specialisation successfully	K2
			C109.3	Speak appropriately and effectively in varied formal and informal contexts.	K6
			C109.4	Write reports and winning job applications	K6
	I-YEAR II-SEM	MA8251- ENGINEERING MATHEMATICS – II	C110.1	Eigenvalues and eigenvectors, diagonalization of a matrix, Symmetric matrices, Positive definite matrices and similar matrices	K3
			C110.2	Gradient, divergence and curl of a vector point function and related	K5

2				identities	
			C110.3	Evaluation of line, surface and volume integrals using Gauss, Stokes and Green's theorems and their verification.	K3
			C110.4	Analytic functions, conformal mapping and complex integration	K5
			C110.5	Laplace transform and inverse transform of simple functions, properties, various related theorems and application to differential equations with constant coefficients	K5
3	I-YEAR II-SEM	PH8252- PHYSICS FOR INFORMATION SCIENCE	C111.1	Discuss about Weidman Franz law and the conduction in solids.	K2
			C111.2	Associate the concept of quantum electron theories with energy band structures.	K2
			C111.3	Discuss the carrier concentration in semiconducting materials.	K2
			C111.4	Explain the origin of magnetism and the properties of magnetic materials.	K2
			C111.5	Discuss the working of Opto-electronic devices.	K2
			C111.6	Summarize the basics of quantum structures and their applications in nano devices.	K2
4	I-YEAR	BE8255- Basic Electrical, Electronics and Measurement	C112.1	Illustrate the behavior of electric circuits using fundamental laws and techniques.	K2
			C112.2	Explain the operation of DC, AC and Special machines	K2

	II-SEM	Engineering	C112.3	Summarize different energy sources, protective devices and its applications	K2
			C112.4	Outline the characteristics and applications of	K2
			C112.5	Summarize the characteristics and errors of the instruments	K2
			C112.6	Explain the working of different types of Analog Instruments and transducers	K2
5	I-YEAR II-SEM	GE8291-ENVIRONMENTAL SCIENCE AND ENGINEERING	C113.1	Summarize the values, threats, conservation of biodiversity and ecosystems	K2
			C113.2	Discuss the sources, effects, control measures of different types of pollution, and solid waste management	K2
			C113.3	Associate the effects of exploitation of Natural resources on environment	K2
			C113.4	Summarize the water conservation methods and various environmental acts for environmental sustainability	K2
			C113.5	Explain the effect of Human population and role of IT in environment and human health	K2
			C113.6	Discuss scientific, technological, economic and social solutions to environmental problems	K2
6	I-YEAR II-SEM	CS8251-PROGRAMMING IN C	C114.1	Explain the syntax for C programming	K2
			C114.2	Associate the programs in 'C' for real world situation	K2
			C114.3	Apply the concepts of Arrays, Strings in 'C' language for user defined problems.	K3
			C114.4	Apply the concept of functions and pointers.	K3

			C114.5	Associate the programs with structure using 'C' language.	K2
			C114.6	Discuss to read and write data from/to files in 'C' Programs.	K2
7	I-YEAR II-SEM	GE8261- Engineering Practices Laboratory	C115.1	Identify Tools and Techniques used for Sheet Metal Fabrication.	K2
			C115.2	Use welding equipment to join the structures	K2
			C115.3	Demonstrate Plumbing requirements of domestic buildings.	K4
			C115.4	Apply the skills of basic electrical engineering for house wiring practice	K3
			C115.5	Measure various electrical quantities	K2
8	I-YEAR II-SEM	CS8261- C PROGRAMMING LABORATORY	C116.1	Develop C programs for simple applications making use of basic constructs	K4
			C116.2	Apply the concept of conditionals and loops in C programs.	K3
			C116.3	Develop the C programs with arrays and strings.	K4
			C116.4	Apply the concept of functions, recursion in C programs	K3
			C116.5	Analyze the concept of pointers, and structures in C	K4
			C116.6	Examine the use of sequential and random access file processing.	K3
			C116.7	Exhibit ethical principles in engineering practices	K3

			C116.8	Perform task as an individual and / or team member to manage the task in time	K3
			C 116.9	Express the Engineering activities with effective presentation and report.	K3
			C116.10	Interpret the findings with appropriate technological / research citation.	K3

PROGRAMME:COMPUTER SCIENCE AND ENGINEERING	DEGREE:U.G	ACADEMIC YEAR : 2020-2021	SEMESTER: III

S.NO	YEAR / SEM	COURSE NAME	COURSE OUTCOMES the students will be able to understand the		KNOWLEDGE LEVEL
1.	II-YEAR III-SEM	MA8351-DISCRETE MATHEMATICS	C201.1	Summarize the concept of elementary mathematical logical arguments.	K2
			C201.2	Apply basic counting techniques to solve combinatorial problems.	K2
			C201.3	Associate the applications of Graph theory models and data structures.	K3
			C201.4	Describe the concepts and properties of algebraic structures such as	K3
			C201.5	Extend the concepts of Boolean algebra in the area of lattices.	K3
			C201.6	Apply the knowledge of argumental discrete mathematical problems.	K2
2.	II-YEAR III-SEM	CS8351- DIGITAL PRINCIPLES AND SYSTEM DESIGN	C202.1	Apply the Boolean functions using K-Map	K3
			C202.2	Interpret Combinational circuits for a given functions using logic gates.	K3
			C202.3	Recognise Synchronous Sequential circuits for the given condition.	K3
			C202.4	Recognise Asynchronous Sequential circuits for the given condition.	K3
			C202.5	Apply Programmable Logic towards memory management	K3

			C202.6	Solve verilog codes for the design of digital circuits.	K3
3	II-YEAR III-SEM	CS8391- DATA STRUCTURES	C203.1	Describe linear data structures using array and linked list.	K2
			C203.2	Apply data structures like stacks, queues in linear data structure.	K3
			C203.3	Discuss non-linear data structures tree and its application	K2
			C203.4	Apply various algorithms in graph.	K3
			C203.5	Solve searching, sorting and hashing techniques in data structures.	K3
			C203.6	Interpret sorting algorithms for a give problem.	K3
4.	II-YEAR III-SEM	CS8392- OBJECT ORIENTED PROGRAMMING	C204.1	Interpret Java programs using Object Oriented Programming principles	K2
			C204.2	Explain Java programs with the concepts inheritance and interfaces	K2
			C204.3	Contrast Java applications using exceptions and I/O streams	K2
			C204.4	Relate Java applications with threads and generics classes	K2
			C204.5	Develop interactive Java programs using swings	K2
			C204.6	Demonstrate simple Graphical User Interfaces	K2

5.	II-YEAR III-SEM	EC8395-COMMUNICATION ENGINEERING	C205.1	Describe the concepts of analog modulation systems.	K2
			C205.2	Illustrate pulse communication techniques	K2
			C205.3	Summarize the concepts of digital modulation systems.	K2
			C205.4	Implement the source coding techniques.	K2
			C205.5	Explain the basic principles in the generation of spread spectrum signals.	K2
			C205.6	Explain the methods of multiple access in communication systems.	K2
6.	II-YEAR III-SEM	CS8381- DATA STRUCTURES LABORATORY	C206.1	Enumerate functions to implement linear and non-linear data structure operations	K2
			C206.2	Perform practical applications of data structures	K3
			C206.3	Design and develop appropriate linear / non-linear data structure operations for solving a given problem	K3
			C206.4	Design new solutions for programming problems or improve existing code using learned algorithms and data structures	K3
			C206.5	Apply the linear / non-linear data structure operations for a given problem based on the user needs	K3
			C206.6	Apply appropriate hash functions that result in a collision free scenario for data storage and retrieval	K3
			C206.7	Exhibit ethical principles in engineering practices	K3
			C206.8	Perform task as an individual and / or team member to manage the task in time	K3

			C206.9	Express the Engineering activities with effective presentation and report.	K3
			C206.10	Interpret the findings with appropriate technological / research citation.	K2
7.	II-YEAR III-SEM	CS8383- OBJECT ORIENTED PROGRAMMING LABORATORY	C207.1	Develop and implement Java programs for simple applications that make use of classes	K3
			C207.2	Develop and implement Java programs with arraylist	K3
			C207.3	Design applications using file processing	K3
			C207.4	Build software development skills using java programming for real-world applications	K3
			C207.5	Apply the concepts of classes, packages, interfaces, exception handling	K3
			C207.6	Develop applications using generic programming and event handling	K3
			C207.7	Exhibit ethical principles in engineering practices	K3
			C207.8	Perform task as an individual and / or team member to manage the task in time	K3
			C207.9	Express the Engineering activities with effective presentation and report.	K3
			C207.10	Interpret the findings with appropriate technological / research citation.	K2
8.	II-YEAR III-SEM		C208.1	Interpret Combinational circuits Using Logic gates.	K3
			C208.2	Illustrate Combinational circuits Using MSI Devices.	K3

		CS8382- DIGITAL SYSTEMS LABORATORY	C208.3	Practice various counters using Flip-flops.	K3
			C208.4	Practice shift registers using Flip-flops	K3
			C208.5	Solve verilog codes for the design of digital circuits.	K3
			C208.6	Demonstrate simple digital system	K3
			C208.7	Exhibit ethical principles in engineering practices	K3
			C208.8	Perform task as an individual and / or team member to manage the task in time	K3
			C208.9	Express the Engineering activities with effective presentation and	K3
			C208.10	Interpret the findings with appropriate technological / research citation	K2
9.	II-YEAR III-SEM	HS8381-INTERPERSONAL SKILLS/LISTENING &SPEAKING	C209.1	Listen and react by giving verbal and non verbal feedback.	K2
			C209.2	To make effective contribution in Group Discussions.	K2,K3
			C209.3	Compare and Contrast the ideas from multiple choices and summarize.	K2
			C209.4	Respond confidently in both Formal and Informal conversations.	K2
			C209.5	To Greet and to respond to Greetings.	K2
			C209.6	Apply stress and intonation while speaking to make the presentation effective.	K3
			C209.7	Exhibit ethical principles in engineering practices	K3
			C209.8	Perform task as an individual and / or team member to manage the task in time	K3
			C209.9	Express the Engineering activities with effective presentation and report.	K3

			C209.10	Interpret the findings with appropriate technological / research citation.	K2

PROGRAMME: COMPUTER SCIENCE AND ENGINEERING	DEGREE:UG	ACADEMIC YEAR : 2020-2021	SEMESTER: IV

SL. NO	YEAR/ SEM	COURSE NAME	COURSE OUTCOMES the students will be able to understand the		KNOWLEDGE LEVEL
1.	II-YEAR IV-SEM	MA8402-PROBABILITY AND QUEUEING THEORY	C210.1	Discuss the concepts of the fundamental Probability Theory, Baye's theorem	K2
			C210.2	Associate the concepts of Standard distributions with real life phenomena.	K2
			C210.3	Summarize the concepts of covariance, correlation and regression . central limit theorem	K2
			C210.4	Explain the concept of Markov chain in terms of a transition probability matrix and transition diagram..	K2
			C210.5	Extend birth and death processes which evolve with respect to time in a probabilistic manner	K2
			C210.6	Interpret the Queuing models.	K2
2.	II-YEAR IV-SEM	CS8491-COMPUTER ARCHITECTURE	C211.1	Describe the basic structures of a computer system.	K2
			C211.2	Explain the various arithmetic operations for computers.	K2
			C211.3	Analyze pipelined control units and the different types of hazards in the instructions.	K2
			C211.4	Interpret the concepts of parallel processing architecture	K2
			C211.5	Summarize the fundamentals of memory system.	K2

			C211.6	Describe the concepts of I/O system	K2
3.	II-YEAR IV-SEM	CS8492-DATABASE MANAGEMENT SYSTEMS	C212.1	Discuss the fundamental concepts of relational database and SQL	K2
			C212.2	Use ER model for Relational model mapping to perform database design effectively	K3
			C212.3	Summarize the properties of transactions and concurrency control mechanisms	K2
			C212.4	Outline the various storage and optimization techniques	K2
			C212.5	Compare and contrast various indexing strategies in different database systems	K2
			C212.6	Explain the different advanced databases	K2
4.	II-YEAR IV-SEM	CS8451-DESIGN AND ANALYSIS OF ALGORITHMS	C213.1	Discuss the fundamental concepts problem solving algorithm, its types and the parameters to analyze those algorithms	K2
			C213.2	Explain the Brute Force method and Divide and Conquer method to solve computing problems.	K2
			C213.3	Explain the dynamic programming and greedy techniques to solve computing problems.	K2
			C213.4	Describe how scientific problems can be solved using iterative method and how to cope with limitations of algorithm power.	K2
			C213.5	Critically analyze the different algorithm design techniques for a given problem based on its time and space complexity.	K3

			C213.6	Modify existing algorithms to improve efficiency	K3
5.	II-YEAR IV-SEM	CS8493-OPERATING SYSTEMS	C214.1	Explain the overall view of the computer system and operating	K2
			C214.2	Identify various scheduling algorithm and deadlock prevention and avoidance algorithm	K2
			C214.3	Compare and contrast various memory management schemes and file system functionalities	K2
			C214.4	Discuss the performance of the various page replacement algorithms	K2
			C214.5	Demonstrate administrative tasks on Linux servers and to be familiar with	K3
			C214.6	Make use of various algorithms to solve computing problems	K3
6.	II-YEAR IV-SEM	CS8494-SOFTWARE ENGINEERING	C215.1	Identify the key activities in managing a software project and recognize different process model	K2
			C215.2	Explain the concepts of requirements engineering and Analysis Modeling.	K2
			C215.3	Outline the systematic procedures for software design and deployment.	K2
			C215.4	Compare various testing and maintenance methods	K2
			C215.5	Interpret the project schedule, estimate project cost and effort required.	K2
			C215.6	Develop a software using the software engineering principles	K3
7.	II-YEAR IV-SEM	CS8481-DATABASE MANAGEMENT SYSTEMS LABORATORY	C216.1	Use typical data definitions and manipulation commands.	K4
			C216.2	Design applications to test Nested and Join Queries	K6
			C216.3	Implement simple applications that use Views	K6
			C216.4	Make use of ER modeling and normalization to design and implement database	K3
			C216.5	Implement applications that require a Front-end Tool	K3

			C216.6	Critically analyze the use of Tables, Views, Functions and Procedures	K4
			C216.7	Exhibit ethical principles in engineering practices	K3
			C216.8	Perform task as an individual and / or team member to manage the task in time	K3
			C216.9	Express the Engineering activities with effective presentation and report.	K3
			C216.10	Interpret the findings with appropriate technological / research citation.	K2
8.	II-YEAR IV-SEM	CS8461-OPERATING SYSTEMS LABORATORY	C217.1	Illustrate the various CPU scheduling algorithms.	K3
			C217.2	Implement deadlock avoidance and detection algorithms.	K3
			C217.3	Implement semaphore concepts.	K3
			C217.4	Create processes and implement IPC.	K3
			C217.5	Analyze the performance of the various page replacement algorithms.	K3
			C217.6	Implement file organization and file allocation strategies.	K3
			C217.7	Exhibit ethical principles in engineering practices	K3
			C217.8	Perform task as an individual and / or team member to manage the task in time	K3
			C217.9	Express the Engineering activities with effective presentation and report.	K3

			C217.10	Interpret the findings with appropriate technological / research citation.	K2
9	II-YEAR IV-SEM	HS8461-Advanced Reading and Writing	C218.1	Read and evaluate the text intelligently.	K1
			C218.2	Understand parts of speech and use appropriate connectives in writing a paragraph.	K2, K2
			C218.3	To write effective job application letter.	K2
			C218.4	Implement speed reading techniques.	K3
			C218.5	Perform critical thinking in various professional contexts.	K2
			C218.6	To prepare descriptive and narrative writing.	K3
			C218.7	Exhibit ethical principles in engineering practices	K3
			C218.8	Perform task as an individual and / or team member to manage the task in time	K3
			C218.9	Express the Engineering activities with effective presentation and report.	K3
			C218.10	Interpret the findings with appropriate technological / research citation.	K2

PROGRAMME: COMPUTER SCIENCE AND ENGINEERING	DEGREE:UG	ACADEMIC YEAR : 2021-2022	SEMESTER: V

S.NO	YEAR/ SEM	COURSE NAME	COURSE OUTCOMES the students will be able to understand the		KNOWLEDGE LEVEL
1.	III- YEAR V-SEM	MA8551-ALGEBRA AND NUMBER THEORY	C301.1	Summarize the notations and properties of algebraic structures such as groups, rings and fields.	K2
			C301.2	Explain the concepts of finite fields and polynomials to solve problems in advanced algebra.	K2
			C301.3	Associate the applications of divisibility theory and canonical decompositions.	K2
			C301.4	Describe the concept of Diophantine equations and congruences and exhibit the efficient use of advanced algebraic techniques in number theory.	K2
			C301.5	Extend the concepts of multiplicative functions and classical theorems.	K2
			C301.6	Associate the knowledge of integrated approach to Number theory and abstract algebra.	K2
2.	III- YEAR V-SEM	CS8591 COMPUTER NETWORKS	C302.1	Identify various layers of network and discuss the functions of physical layer	K2
			C302.2	Discuss how data flows from one node to another node with regard to data link layer	K2
			C302.3	Explain the different services of network layer	K2

			C302.4	Compare the different transport layer protocols and their applicability based on user requirements	K3
			C302.5	Describe the working of various application layer protocols	K2
			C302.6	Evaluate the performance of network and analyze routing algorithms	K3
3.	III- YEAR V-SEM	EC8691 MICROPROCESSORS AND MICROCONTROLLERS	C303.1	Explain the architecture and instruction set of Microprocessor	K2
			C303.2	Discuss about System Bus Structure for Multiprocessor Configuration	K2
			C303.3	Infer the functions of various interfacing integrated chips	K2
			C303.4	Explain the architectures and instruction set of Microcontroller	K2
			C303.5	Illustrate the functions of various interfacing devices with Microcontroller.	K2
			C303.6	Build an assembly language program for interfacing	K3
4.	III- YEAR V-SEM	CS8501 THEORY OF COMPUTATION	C304.1	Design automata for any given pattern	K2
			C304.2	Specify regular expression of string pattern	K2
			C304.3	Write context free grammar for any language	K3
			C304.4	Apply Turing machine to propose computation solutions	K2
			C304.5	Interpret whether a problem is decidable or not.	K2
			C304.5	Interpret NP class problems	K3

5.	III- YEAR V-SEM	CS8592 OBJECT ORIENTED ANALYSIS AND DESIGN	C305.1	Express the software design concepts with UML diagram.	K2
			C305.2	Construct the domain model and design model to various	K2
			C305.3	Design software applications using object oriented concepts.	K3
			C305.4	Identify various scenarios based on software	K2
			C305.5	Transform UML based software design into pattern based design using design patterns.	K2
			C305.6	Explain the various testing methodologies for object oriented software.	K2
6.	III- YEAR V-SEM	OCE55- Air Pollution and Control Engineering	C306.1	Understand of the nature and characteristics of air pollutants and its effects.	K3
			C306.2	Identify meteorological factors influencing air pollution and wind characteristics	K2
			C306.3	Design stacks and particulate air pollution control devices to meet applicable standards	K2
			C306.4	Understand control of gaseous contaminants and select control equipments for gaseous air pollutants.	K2
			C306.5	Show how to ensure quality, control and preventive measures for noise pollution and indoor air pollution	K2
7.	III- YEAR V-SEM	EC8681 MICROPROCESSORS AND MICROCONTROLLERS LABORATORY	C307.1	Interpret the architecture and operation of microprocessor (8086).	K2
			C307.2	Implement simple assembly language programs using instruction sets of microprocessor and	K3
			C307.3	Compare instruction sets of 8086 microprocessor and 8051 microcontroller.	K3
			C307.4	Implement assembly language programs using instruction sets of microcontroller.	K3

			C307.5	Develop applications using instructions of microprocessors and microcontroller.	K3
			C307.6	Interpret the architecture and operation of microcontroller(8051)	K2
			C307.7	Exhibit ethical principles in engineering practices	K3
			C307.8	Perform task as an individual and / or team member to manage the task in time	K3
			C307.9	Express the Engineering activities with effective presentation and report.	K3
			C307.10	Interpret the findings with appropriate technological / research citation.	K2
8	III- YEAR V-SEM	CS8582 - OBJECT ORIENTED ANALYSIS AND DESIGN LABORATORY	C308.1	Make use of object oriented and design concepts to solve a given problem specifications	K3
			C308.2	Identify and map basic software requirements in UML mapping.	K2
			C308.3	Apply design patterns to improve the software quality	K3
			C308.4	Test the compliance of the software with SRS	K3
			C308.5	Map the object oriented design to the developed code	K3
			C308.6	Apply object oriented design to develop a software	K3
			C308.7	Exhibit ethical principles in engineering practices	K3
			C308.8	Perform task as an individual and / or team member to manage the task in time	K3
			C308.9	Express the Engineering activities with effective presentation and report.	K3
			C308.10	Interpret the findings with appropriate technological / research citation.	K2

9.	III- YEAR V-SEM	CS8581 - NETWORKS LABORATORY	C309.1	Implement various protocols using TCP and UDP K3 C309.	K3
			C309.2	Compare the performance of different transport layer protocols	K3
			C309.3	Use simulation tools to analyze the performance of various network protocols	K3
			C309.4	Analyze various routing algorithms	K3
			C309.5	Implement error correction codes	K3
			C309.6	Explain Network simulator (NS) and Simulate Congestion Control Algorithms using NS	K3
			C309.7	Exhibit ethical principles in engineering practices	K3
			C309.8	Perform task as an individual and / or team member to manage the task in time	K3
			C309.9	Express the Engineering activities with effective presentation and report.	K3
			C309.10	Interpret the findings with appropriate technological / research citation.	K2

PROGRAMME:COMPUTER SCIENCE AND ENGINEERING	DEGREE:UG	ACADEMIC YEAR : 2021-2022	SEMESTER: VI

S.NO	YEAR/ SEM	COURSE NAME	COURSE OUTCOMES the students will be able to understand the		KNOWLEDGE LEVEL
1.	III- YEAR VI-SEM	CS8651 INTERNET PROGRAMMIG	C310.1	Demonstrate simple website using HTML and CSS.	K2
			C310.2	Build dynamic web pages with validation using Java Script objects and apply different event handling mechanisms.	K3

			C310.3	Illustrate server side programs using Servlet and JSP.	K2
			C310.4	Demonstrate simple web pages in PHP and to represent data in XML format.	K2
			C310.5	Illustrate AJAX and web services to develop interactive web applications.	K3
2.	III- YEAR VI-SEM	CS8691 ARTIFICIAL INTELLIGENCE	C311.1	List the characteristics and types of intelligent agents	K2
			C311.2	Interpret search algorithms for any AI problem	K2
			C311.3	Illustrate a problem using first order and predicate logic	K2
			C311.4	Explain the appropriate agent strategy to solve a given problem	K2
			C311.5	Develop software agents to solve a problem	K2
			C311.6	Demonstrate applications for NLP that use Artificial Intelligence	K2
3.	III- YEAR VI-SEM	CS8601-MOBILE COMPUTING	C312.1	Understand the basic concepts of mobile computing	K2
			C312.2	Explain the basics of mobile telecommunication systems	K2
			C312.3	Illustrate the generations of telecommunication systems in wireless networks	K2
			C312.4	Demonstrate the functionality of MAC, network layer and Identify a routing protocol for a given Ad hoc network	K2
			C312.5	Explain the functionality of Transport and Application layers	K2

			C312.6	Develop a mobile application using android/blackberry/ios/Windows SDK android/blackberry/ios/Windows SDK	K3
4.	III- YEAR VI-SEM	CS8602 COMPILER DESIGN	C313.1	Illustrate a lexical analyzer for a sample language.	K2
			C313.2	Explain different parsing algorithms to develop the parsers for a given grammar	K2
			C313.3	Understand syntax-directed translation and run-time environment.	K2
			C313.4	Understand intermediate code generation and run-time environment	K2
			C313.5	Apply code optimization techniques for programming construct	K3
			C313.6	Develop a scanner and a parser using LEX and YACC tools.	K3
5.	III- YEAR VI-SEM	CS8603 DISTRIBUTED SYSTEMS	C314.1	Elucidate the foundations and issues of distributed systems	K2
			C314.2	Understand the various synchronization issues and global state for distributed systems.	K2
			C314.3	Comprehend the Mutual Exclusion and Deadlock detection algorithms in distributed systems	K2
			C314.4	Show the use of agreement protocols and fault tolerance mechanisms in distributed systems.	K2
			C314.5	Relate the features of peer-to-peer and distributed shared memory systems	K2

			C314.6	Interpret the real-time distributed system applications	K2
6.	III- YEAR VI-SEM	IT8076 Software Testing	C315.1	Understand about the Software Testing Principles and Defect Classes	K2
			C315.2	Design test cases suitable for a software development for different	K6
			C315.3	Identify suitable tests to be carried out.	K2
			C315.4	Prepare test planning based on the document and document test plans	K6
			C315.5	Use automatic testing tools	K3
			C315.6	Develop and validate a test plan.	K6
6.	III- YEAR VI-SEM	CS8661 INTERNET PROGRAMMING LAB	C316.1	Construct web pages using HTML/XML and style sheets.	K3
			C316.2	Build dynamic web pages with validation using javascript objects and apply different event handling mechanisms.	K3
			C316.3	Develop dynamic web pages using server side scripting.	K3
			C316.4	Use PHP programming to develop web applications.	K3
			C316.5	Construct web applications using AJAX and web services.	K3
			C316.6	Develop interactive web applications for real world problems.	K3

			C316.7	Exhibit ethical principles in engineering practices	K3
			C316.8	Perform task as an individual and / or team member to manage the task in time	K3
			C316.9	Express the Engineering activities with effective presentation and report.	K3
			C316.10	Interpret the findings with appropriate technological / research citation.	K2
7.	III- YEAR VI-SEM	CS8662 MOBILE APPLICATION DEVELOPMENT LAB	C317.1	Illustrate mobile applications using GUI and Layouts.	K3
			C317.2	Demonstrate mobile applications using Event Listener.	K3
			C317.3	Experiment with mobile applications using Databases.	K3
			C317.4	Make use of mobile applications using RSS Feed, Internal/External Storage, SMS, Multithreading and GPS.	K3
			C317.5	Build own mobile app for simple needs	K3
			C317.6	Model various mobile applications using different application development frameworks.	K3
			C317.7	Exhibit ethical principles in engineering practices	K3
			C317.8	Perform task as an individual and / or team member to manage the task in time	K3
			C317.9	Express the Engineering activities with effective presentation and report.	K3
			C317.10	Interpret the findings with appropriate technological / research citation.	K2

8.	III- YEAR VI-SEM	CS8611-MINI PROJECT	C318.1	Choose problems with technical importance and societal contribution	K3
			C318.2	Identify and survey the relevant literature for getting exposed to	K3
			C318.3	Build project plans with feasible requirements	K3
			C318.4	Analyse, design and develop adaptable and reusable solutions	K4
			C318.5	Implement and test solutions to trace against the user	K4
			C318.6	Deploy the solutions for better manageability and provide scope	K4
9.	III- YEAR VI-SEM	HS8581-PROFESSIONAL COMMUNICATION	C319.1	To classify the content material and make effective presentations.	K2
			C319.2	Employ adequate soft skills to successfully execute the job on hand.	K3
			C319.3	To respond favorably to the values of others opinion and manage difficult situations in group discussions wisely	K3,K2
			C319.4	To execute various skills in grooming for any profession.	K3
			C319.5	To display the body language in a very pleasant manner and react to even tough situations with ease.	K2
			C319.6	To perform intelligently during job interviews and be successful.	K3,K2
			C319.7	Exhibit ethical principles in engineering practices	K3
			C319.8	Perform task as an individual and / or team member to manage the task	K3
			C319.9	Express the Engineering activities with effective presentation and report	K3
			C319.10	Interpret the findings with appropriate technological / research	K2

PROGRAMME:ELECTRONICS AND COMMUNICATION ENGINEERING	DEGREE:UG	ACADEMIC YEAR : 2022-2023	SEMESTER: VII

S.NO	YEAR/ SEM	COURSE NAME	COURSE OUTCOMES the students will be able to understand the		KNOWLEDGE LEVEL
1.	IV- YEAR VII-SEM	MG8591- PRINCIPLES OF MANAGEMENT	C401.1	Discuss the evolution of management thoughts and the challenges of managerial activities in a global business	K2
			C401.2	Explain the types of Planning and Decision making methodologies in Organizations..	K2
			C401.3	Summarize various types of Organization structure and associated Human Resources activities for man-power utilization.	K2
			C401.4	Explain about motivation theories, behavior, leadership theories and communication for effective directing.	K2
			C401.5	Explain various Controlling techniques to maintain standards in Organizations.	K2
			C401.6	Associate managerial functions and knowledge on international aspect for Organizational growth	K2
2.	IV- YEAR VII-SEM	CS8792- CRYPTOGRAPHY AND NETWORK SECURITY	C402.1	Describe the fundamentals of networks security, security architecture, threats and vulnerabilities	K2
			C402.2	Discuss the mathematical support for both symmetric and asymmetric key cryptography	K2
			C402.3	Make use of symmetric key cryptographic algorithms to perform cryptographic operations	K3
			C402.4	Solve cryptographic operations using public key cryptographic algorithms	K3

			C402.5	Apply the various Authentication schemes to simulate different applications.	K3
			C402.6	Explain various Security practices and System security	K2
3.	IV- YEAR VII-SEM	CS8791- CLOUD COMPUTING	C403.1	Articulate the main concepts, key technologies, strengths and limitations of cloud computing.	K2
			C403.2	Explain the key and enabling technologies that help in the development of cloud.	K2
			C403.3	Make use of NIST cloud computing architecture to solve architecture design challenges	K3
			C403.4	Explain the core issues of cloud computing such as resource management and security.	K2
			C403.5	Install and use current cloud technologies.	K3
			C403.6	Illustrate and choose the appropriate technologies, algorithms and approaches for implementation and use of cloud.	K3
4.	IV- YEAR VII-SEM	IT8075-SOFTWARE PROJECT MANAGEMENT	C404.1	Understand Project Management principles while developing software.	K2
			C404.2	Gain extensive knowledge about the basic project management concepts, framework and the process models.	K2
			C404.3	Obtain adequate knowledge about software process models and software effort estimation techniques	K2
			C404.4	Estimate the risks involved in various project activities	K2
			C404.5	Define the checkpoints, project reporting structure, project progress and tracking mechanisms using project management	K2

				principles.	
			C404.6	Learn staff selection process and the issues related to	K2
5.	IV- YEAR VII-SEM	CS8079-HUMAN COMPUTER INTERACTION	C405.1	Design effective dialog for HCI.	K2
			C405.2	Design effective HCI for individuals and persons with disabilities.	K2
			C405.3	Assess the importance of user feedback	K2
			C405.4	Explain the HCI implications for designing multimedia/ ecommerce/ e-learning Web sites.	K2
			C405.5	Develop meaningful user interface.	K2
6.	IV- YEAR VII-SEM	CS8711-CLOUD COMPUTING LABORATORY	C406.1	Configure various virtualization tools such as Virtual Box, VMware	K2
			C406.2	Configure various virtualization tools such as Virtual Box, VMware workstation.	K2
			C406.3	Learn how to simulate a cloud environment to implement new schedulers	K2
			C406.4	Demonstrate generic cloud environment that can be used as a private cloud	K3
			C406.5	Manipulate large data sets in a parallel environment.	K2
			C406.6	Apply Hadoop single node cluster and run simple applications	K3
			C406.7	Exhibit ethical principles in engineering practices	K3
			C406.8	Perform task as an individual and / or team member to manage the task in time	K3
			C406.9	Express the Engineering activities with effective presentation and report.	K3
			C406.10	Interpret the findings with appropriate technological /	K2

				research citation.	
7.	IV- YEAR VII-SEM	IT8761-SECURITY LABORATORY	C407.1	Develop code for classical Encryption Techniques to solve the problems.	K3
			C407.2	Build cryptosystems by applying symmetric and public key encryption	K3
			C407.3	Construct code for authentication algorithms.	K3
			C407.4	Develop a signature scheme using Digital signature standard.	K3
			C407.5	Demonstrate the network security system using open source tools	K2
			C407.6	Develop code for classical Encryption Techniques to solve the problems.	K3
			C407.7	Exhibit ethical principles in engineering practices	K3
			C407.8	Perform task as an individual and / or team member to manage the task in time	K3
			C407.9	Express the Engineering activities with effective presentation and report.	K3
			C407.10	Interpret the findings with appropriate technological / research citation.	K2

PROGRAMME:ELECTRONICS AND COMMUNICATION ENGINEERING	**DEGREE:UG**	**ACADEMIC YEAR : 2022-2023**	**SEMESTER: VIII**

S.NO	**YEAR/ SEM**	**COURSE NAME**	**COURSE OUTCOMES the students will be able to understand the**		**KNOWLEDGE LEVEL**
	IV- YEAR	GE8076-PROFESSIONAL ETHICS IN	C408.1	The student should be able to apply ethics in society	K2

1.	VIII-SEM	ENGINEERING	C408.2	Discuss The Ethical Issues Related To Engineering	K2
			C408.3	Realize the responsibilities and rights in the society.	K3
2.	IV- YEAR VIII-SEM	CS8080-INFORMATION RETRIEVAL TECHNIQUE	C409.1	Interpret open source search engine framework and explore its capabilities	K2
			C409.2	Apply appropriate method of classification or clustering.	K3
			C409.3	Design and implement innovative features in a search engine.	K3
			C409.4	Design and implement a recommender system.	K3
			C409.5	Demonstrate an open source search engine framework and explore its capabilities	K2
			C409.6	Demonstrate the entire process flow of a search engine	K2
3.	IV- YEAR VIII-SEM	CS8811-PROJECT WORK	C410.1	Identify technically and economically feasible problems of social relevance	K3
			C410.2	Plan and build the project team with assigned responsibilities	K5
			C410.3	Identify and survey the relevant literature for getting exposed to related solutions	K4
			C410.4	Analyse, design and develop adaptable and reusable solutions of minimal complexity by using modern tools	K6
			C410.5	Implement and test solutions to trace against the user requirements	K4

			C410.6	Deploy and support the solutions for better manageability of the solutions and provide scope for improvability	K5

MAPPING OF COURSE OUTCOMES WITH PROGRAM OUTCOMES & PROGRAM SPECIFIC OBJECTIVES (PSOs)

C101/HS8151 - COMMUNICATIVE ENGLISH															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C101.1	-	-	-	-	2	-	1	-	-	-	3	1	-	-	2
C101.2	-	3	-	-	2	-	2	-	-	-	2	2	-	-	2
C101.3	-	3	-	-	2	-	3	-	-	-	2	2	-	-	2
C101.4	-	3	-	-	-	-	2	-	-	-	3	2	-	-	2
AVg.	-	**3**	-	-	**2**	-	**2**	-	-	-	**2.5**	**1.7**	-	-	2

C102/ MA8151- ENGINEERING MATHEMATICS – I															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C102.1	2	1	-	-	-	-	-	-	-	-	-	2	1	2	1
C102.2	1	2	2	-	-	-	-	-	-	-	-	-	-	1	2
C102.3	-	1	1	1	-	-	-	-	-	-	-	2	-	1	1
C102.4	2	-	-	2	-	-	-	-	-	-	2	-	1	2	2
C102.5	2	-	1	2	-	-	-	-	-	-	2	1	1	1	1
AVg.	**1.75**	**2**	**1.33**	**1.66**	-	-	-	-	-	-	**2**	**1.66**	**1**	**1.4**	**1.4**

C103/ PH8151- ENGINEERING PHYSICS															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C103.1	2	2	-	-	-	-	-	-	-	-	-	2	1	-	-
C103.2	3	2	-	2	-	-	-	-	-	-	3	1	2	2	-
C103.3	-	1	-	-	-	-	-	-	-	-	2	1	-	-	-
C103.4	1	-	-	2	-	-	-	-	-	-	-	2	1	3	-
C103.5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AVg.	**1.75**	**1.66**	-	**2**	-	-	-	-	-	-	**2.5**	**1.5**	**1.33**	**2.5**	-

C104/ CY8151- ENGINEERING CHEMISTRY															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C104.1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C104.2	2	-	-	-	-	-	-	-	-	-	1	-	1	1	-
C104.3	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-
C104.4	2	-	-	-	-	-	-	-	-	-	-	2	-	-	-
C104.5	-	2	-	1	-	-	-	-	-	-	2	2	1	2	-
AVg.	**1.6**	**1.5**	-	**1**	-	-	-	-	-	-	**1.5**	**1.66**	1	1.5	-

C105 / **GE8151-PROBLEM SOLVING AND PYTHON PROGRAMMING**															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C105 **.1**	3	-	2	-	2	-	-	-	-	-	-	-	2	2	2
C105 **.2**	2	2	2	-	-	-	-	-	-	-	-	-	3	-	-
C105 **.3**	-	2	1	-	-	-	-	-	-	-	-	-	-	2	-
C105 **.4**	-	1	-	1	-	-	-	-	-	-	-	-	2	3	2
C105 **.5**	-	-	2	2	2	-	-	-	-	-	-	-	-	-	2
C105 **.6**	-	-	-	2	1	-	-	-	-	-	-	-	-	2	-
AVg.	**2.5**	**1.6**	**1.75**	**1.6**	**1.6**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2.3**	**2.25**	**2**

C106/ GE8152- ENGINEERING GRAPHICS															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C106.**1**	3	-	2	2	-	-	2	-	-	3	-	2	2	-	-
C106.**2**	3	1	-	-	-	-	-	-	-	3	-	-	-	-	-
C106.**3**	-	-	2	-	-	-	-	-	-	-	-	2	-	-	-
C106.**4**	-	1	-	2	-	-	-	-	-	3	-	-	2	2	-
C106.5	3	1	2	2	-	-	-	-	-	3	-	-	2	2	-
AVg.	**3**	**1**	**2**	**2**	**-**	**-**	**2**	**-**	**-**	**3**	**-**	**2**	**2**	**2**	**-**

C107/ GE8161- PROBLEM SOLVING ANDPYTHON PROGRAMMING LABORATORY															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C107.**1**	3	-	-	-	-	-	-	-	-	-	-	-	3	2	1
C107.**2**	1	3	2	-	-	-	-	-	-	-	-	-	2	1	-
C107.**3**	-	-	2	-	-	-	-	-	-	-	-	-	-	1	-
C107.**4**	-	-	-	-	2	-	-	-	-	1	-	-	-	-	1
C107.5	-	-	-	-	-	-	-	-	-	2	-	-	-	-	1
Avg.	**2**	**3**	**2**	**-**	**2**	**-**	**-**	**-**	**-**	**1.5**	**-**	**-**	2.5	1.3	1

C108/ BS8161- PHYSICS AND CHEMISTRY LABORATORY															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C108.**1**	-	-	-	1	-	-	-	-	-	-	2	2	2	-	2
C108.**2**	-	-	-	-	-	-	-	-	-	-	1	1	-	-	1
C108.**3**	2	2	-	-	-	-	-	-	-	-	-	-	1	-	-
C108.**4**	-	-	-	2	-	-	-	-	-	-	-	-	-	-	1
C108.5	2	2	-	-	-	-	-	-	-	-	-	2	1	-	-
AVg.	**2**	**2**	**-**	**1.5**	**-**	**-**	**-**	**-**	**-**	**-**	**1.5**	**1.66**	**2**	**-**	**2**

C109/ HS8251- TECHNICAL ENGLISH															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C109.**1**	-	-	-	3	-	2	-	-	-	3	3	3	-	-	2
C109.**2**	-	-	-	3	-	1	-	-	-	3	-	1	-	-	2
C109.**3**	-	-	-	3	-	-	-	-	3	3	2	1	-	-	2
C109.**4**	-	-	-	3	-	3	-	-	3	3	3	3	-	-	2
AVg.	**-**	**-**	**-**	**3**	**-**	**1.5**	**-**	**-**	**1.5**	**3**	**2**	**2**	**-**	**-**	**2**

C110/ MA8251- ENGINEERING MATHEMATICS – II															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C110.1	2	-	2	-	-	-	-	-	-	-	1	2	2	1	1
C110.2	-	1	-	1	-	-	-	-	-	-	-	-	1	2	-
C110.3	2	-	-	-	-	-	-	-	-	-	-	1	1	2	1
C110.4	1	2	-	2	-	-	-	-	-	-	-	2	1	1	2
C110.5	2	2	2	2	-	-	-	-	-	-	2	2	2	2	2
Avg.	**1.75**	**1.66**	**2**	**1.66**	**-**	**-**	**-**	**-**	**-**	**-**	**1.5**	**1.75**	**1.4**	**1.6**	**1.2**

C111/**PH8252**- PHYSICS FOR INFORMATION SCIENCE															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C111.1	2	1	-	-	-	-	-	-	-	2	-	-	-	-	-
C111.2	2	1	-	-	-	-	-	-	-	2	-	-	-	-	-
C111.3	2	1	-	-	-	-	-	-	-	2	-	-	-	-	-
C111.4	2	1	-	-	-	-	-	-	-	2	-	-	-	-	-
C111.5	2	1	-	-	-	-	-	-	-	2	-	-	-	-	-
AVg	2	1	-	-	-	-	-	-	-	2	-	-	-	-	-

C112/ BE8255- BASIC ELECTRICAL, ELECTRONICS AND MEASUREMENT ENGINEERING															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	2	**PSO2**	**PSO3**
C112.1	2	1	-	-	-	-	-	-	-	1	-	-	2	-	-
C112.2	2	1	-	-	-	-	-	-	-	1	-	-	2	-	-
C112.3	2	1	-	-	-	2	-	-	-	1	-	-	2	-	-
C112.4	2	1	-	-	-	-	-	-	-	1	-	-	2	-	-
C112.5	2	1	-	-	-	-	-	-	-	1	-	-	2	-	-
AVg	2	1	-	-	-	2	-	-	-	1	-	-	2	-	-

C113/ GE8291- ENVIRONMENTAL SCIENCE AND ENGINEERING															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C113.1	-	-	-	-	-	2	3	-	-	2	-	-	-	-	-
C113.2	2	-	-	-	-	2	3	-	-	2	-	-	-	-	-
C113.3	2	-	-	-	-	2	3	-	-	2	-	-	-	-	-
C113.4	-	-	-	-	-	2	3	-	-	2	-	-	-	-	-
C113.5	-	-	-	-	-	-	3	-	-	2	-	-	-	-	-
AVg.	2	-	-	-	-	-	3	-	-	2	-	-	-	-	-

C114/ CS8251- PROGRAMMING IN C															
CO	**PO 1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C114.1	2	1	1	1	-	-	-	-	-	-	-	-	1	-	-
C114.2	2	1	1	1	2	-	-	-	-	-	-	-	2	3	1
C114.3	3	2	2	1	3	-	-	-	-	-	-	-	1	2	-
C114.4	3	2	2	1	3	-	-	-	-	-	-	-	2	2	-
C114.5	2	1	1	1	2	-	-	-	-	-	-	-	2	3	-
C114.6	2	1	1	1	2	-	-	-	-	-	-	-	1	2	-
AVg.	2	**1**	**1**	**1**	2	-	-	-	-	-	-	-	**2**	**2**	1

C115/ CS8261- C PROGRAMMING LABORATORY															
CO	**PO 1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C115.1	3	3	3	2	-	-	-	-	-	-	-	-	1	-	-
C115.2	3	2	2	1	3	-	-	-	-	-	-	-	2	1	-
C115.3	3	3	3	2	3	-	-	-	-	-	-	-	1	2	-
C115.4	3	2	2	1	3	-	-	-	-	-	-	-	2	1	-
C115.5	3	3	3	2	3	-	-	-	-	-	-	-	2	1	-
C115.6	3	2	2	1	3	-	-	-	-	-	-	-	1	2	-
C115.7	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-
C115.8	-	-	-	-	-	-	-	-	3	-	3	-	-	-	-
C115.9	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-
C115.10	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
AVg.	3	**3**	**3**	**2**	3	**-**	**-**	3	3	3	3	3	**2**	**1**	**-**

C116/GE8261- ENGINEERING PRACTICES LABORATORY															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C116.1	3	3	-	-	1	2	-	1	2	-	-	2	-	2	-
C116.2	3	3	-	-	1	2	-	1	2	-	-	2	-	2	-
C116.3	3	3	-	-	-	2	-	1	2	-	-	2	-	-	-
C116.4	3	3	-	-	1	-	-	1	2	-	-	2	-	2	-
C116.5	3	3	-	-	-	-	-	1	2	-	-	2	-	2	-
C116.6	3	3	-	-	1	2	-	1	2	-	-	2	-	-	-
C116.7	3	3	-	-	1	2	-	1	2	-	-	2	-	-	-
C116.8	3	3	-	-	1	-	-	1	2	-	-	2	3	-	-
AVg.	3	3	**-**	**-**	1	**2**	**-**	1	2	**-**	**-**	2	**3**	2	**-**

C201/ MA8351- DISCRETE MATHEMATICS															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C201.1	2	-	1	-	-	-	-	-	-	-	-	-	2	-	-
C201.2	2	1	1	-	-	-	-	-	-	-	-	-	2	-	-
C201.3	3	2	-	-	-	-	-	-	-	-	-	-	2	-	-
C201.4	3	-	-	-	-	-	-	-	-	-	-	-	2	-	-
C201.5	3	-	2	-	-	-	-	-	-	-	-	-	2	-	-
C201.6	2	-	2	-	-	-	-	-	-	-	-	-	2	-	-
AVg.	**3**	**2**	**2**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2**	**-**	**-**

C202/ CS8351 DIGITAL PRINCIPLES AND SYSTEM DESIGN															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C202.1	3	2	2	-	-	-	-	-	-	-	-	-	2	-	-
C202.2	3	2	2	-	-	-	-	-	-	-	-	-	2	-	-
C202.3	3	2	2	-	-	-	-	-	-	-	-	-	1	-	-
C202.4	3	2	2	-	-	-	-	-	-	-	-	-	1	-	-
C202.5	3	2	2	-	-	-	-	-	-	-	-	-	2	-	-
C202.6	2	1	1	-	-	-	-	-	-	-	-	-	2	-	-
AVg.	**3**	**2**	**2**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2**	**-**	**-**

C203/ CS8391DATA STRUCTURES															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C203.1	2	2	1	-	-	-	-	-	-	-	-	-	2	2	1
C203.2	2	2	1	-	-	-	-	-	-	-	-	-	2	2	1
C203.3	2	2	1	-	-	-	-	-	-	-	-	-	2	2	1
C203.4	3	2	2	1	-	-	-	-	-	-	-	-	2	2	1
C203.5	3	2	2	1	-	-	-	-	-	-	-	-	2	2	1
C203.6	3	2	2	1	-	-	-	-	-	-	-	-	2	2	1
AVg.	**3**	2	**2**	1	-	-	-	-	-	-	-	-	2	2	1
C204/ CS8392OBJECT ORIENTED PROGRAMMING															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C204.1	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C204.2	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C204.3	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C204.4	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C204.5	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C204.6	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
AVg.	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-

C205/ EC8395 COMMUNICATION ENGINEERING															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C204.1	2	1	1	-	-	-	-	-	-	1	-	-	2	-	-
C204.2	2	1	1	-	-	-	-	-	-	1	-	-	2	-	-
C204.3	2	-	-	-	-	-	-	-	-	1	-	-	2	-	-
C204.4	2	2	2	-	-	-	-	-	-	1	-	-	2	-	-
C204.5	2	1	1	-	-	-	-	-	-	-	-	-	2	-	-
C204.6	2	1	1	-	-	-	-	-	-	-	-	-	2	-	-
AVg.	2	1	**1**	-	-	-	-	-	-	1	-	-	2	-	-

C206/ CS8381DATA STRUCTURES LABORATORY															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C206.1	2	2	2	-	-	2	1	1	-	-	-	-	**2**	**1**	**1**
C206.2	2	2	2	1	-	1	1	1	-	-	-	-	**2**	**1**	**1**
C206.3	1	3	2	-	-	2	1	1	-	-	-	-	**2**	**1**	**1**
C206.4	2	2	2	2	-	2	2	1	-	-	-	-	**2**	**1**	**1**
C206.5	3	2	1	1	-	2	1	1	-	-	-	-	**2**	**1**	**1**
C206.6	2	1	1	1	-	1	2	1	-	-	-	-	**2**	**1**	**1**
C206.7	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-
C206.8	-	-	-	-	-	-	-	-	3	-	3	-	-	-	-
C206.9	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-
C206.10	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
AVg.	2	2	2	2	-	2	2	1	3	3	3	3	**2**	**1**	**1**

C207/CS8383 OBJECT ORIENTED PROGRAMMING LABORATORY															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**

C207.1	3	2	2	1	-	-	-	-	-	-	-	-	2	2	-
C207.2	3	2	2	1	-	-	-	-	-	-	-	-	2	2	-
C207.3	3	2	2	1	-	-	-	-	-	-	-	-	2	2	-
C207.4	3	2	2	1	-	-	-	-	-	-	-	-	3	2	-
C207.5	3	2	2	1	-	-	-	-	-	-	-	-	2	2	-
C207.6	3	2	2	1	-	-	-	-	-	-	-	-	2	2	-
C207.7	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-
C207.8	-	-	-	-	-	-	-	-	3	-	3	-	-	-	-
C207.9	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-
C207.10	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
AVg.	**3**	**2**	**2**	1	**-**	**-**	**-**	3	3	3	3	**3**	**2**	**2**	**-**

C208/ CS8382 DIGITAL SYSTEMS LABORATORY															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C208.1	3	2	2	-	-	-	-	-	-	-	-	-	1	-	-
C208.2	3	2	2	-	-	-	-	-	-	-	-	-	1	-	-
C208.3	3	2	2	-	-	-	-	-	-	-	-	-	1	-	-
C208.4	3	2	2	-	-	-	-	-	-	-	-	-	1	-	-
C208.5	3	2	2	-	-	-	-	-	-	-	-	-	1	-	-
C208.6	3	2	2	-	-	-	-	-	-	-	-	-	1	-	-
C208.7	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-
C208.8	-	-	-	-	-	-	-	-	3	-	3	-	-	-	-
C208.9	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-
C208.10	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
AVg.	**3**	**2**	**2**	**-**	**-**	**-**	**-**	3	3	3	3	**3**	1	**-**	**-**

C209/ HS8381 INTERPERSONAL SKILLS/LISTENING &SPEAKING															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C209.1	-	-	-	-	-	-	-	-	2	3	-	3	-	-	-
C209.2	-	-	-	-	-	-	-	-	3	2	-	3	-	-	-
C209.3	-	-	-	-	-	-	-	-	2	2	-	3	-	-	-
C209.4	-	-	-	-	-	-	-	-	2	2	-	3	-	-	-
C209.5	-	-	-	-	-	-	-	-	3	2	-	3	-	-	-
C209.6	-	-	-	-	-	-	-	-	2	3	-	2	-	-	-
C209.7	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-
C209.8	-	-	-	-	-	-	-	-	3	-	3	-	-	-	-
C209.9	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-
C209.10	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
AVg.	-	-	-	-	-	-	-	3	2	2	3	3	-	-	-

C210/ MA8402 PROBABILITY AND QUEUEING THEORY															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C210.1	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-
C210.2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-
C210.3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-
C210.4	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-

C210.5	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-
C210.6	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-
AVg.	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-

C211/ CS8491 COMPUTER ARCHITECTURE															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C211.1	2	1	1	-	-	-	-	-	-	-	-	-	2	-	-
C211.2	2	1	1	-	-	-	-	-	-	-	-	-	2	-	-
C211.3	3	2	2	-	-	-	-	-	-	-	-	-	2	2	-
C211.4	2	1	1	-	-	-	-	-	-	-	-	-	2	-	-
C211.5	2	1	1	-	-	-	-	-	-	-	-	-	2	-	-
C211.6	2	1	1	-	-	-	-	-	-	-	-	-	2	-	-
AVg.	2	**1**	**1**	-	-	-	-	-	-	-	-	-	2	**2**	-

C212/CS8492 DATABASE MANAGEMENT SYSTEMS															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C212.1	2	1	1	-	-	-	-	-	-	-	-	-	2	**2**	-
C212.2	2	2	2	-	-	-	-	-	-	-	-	-	2	**3**	-
C212.3	3	1	1	-	-	-	-	-	-	-	-	-	2	**2**	-
C212.4	2	1	1	-	-	-	-	-	-	-	-	-	2	**2**	-
C212.5	2	1	1	-	-	-	-	-	-	-	-	-	2	**2**	-
C212.6	2	1	1	-	-	-	-	-	-	-	-	-	2	**2**	-
AVg.	2	**1**	**1**	-	-	-	-	-	-	-	-	-	2	**2**	-

C213/ CS8451 DESIGN AND ANALYSIS OF ALGORITHMS															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C213.1	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C213.2	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C213.3	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C213.4	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C213.5	3	2	2	-	-	-	-	-	-	-	-	-	2	2	-
C213.6	3	2	2	-	-	-	-	-	-	-	-	-	2	2	-
AVg.	2	**1**	**1**	-	-	-	-	-	-	-	-	-	2	2	-

C214/ CS8493 OPERATING SYSTEMS															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C214.1	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C214.2	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C214.3	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C214.4	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C214.5	3	2	2	-	-	-	-	-	-	-	-	-	2	2	-
C214.6	3	2	2	-	-	-	-	-	-	-	-	-	2	3	-
AVg.	2	**1**	**1**	-	-	-	-	-	-	-	-	-	2	2	-

C214/ CS8494 SOFTWARE ENGINEERING															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**

C214.1	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C214.2	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C214.3	3	2	2	-	-	-	-	-	-	-	-	-	2	2	-
C214.4	3	2	2	-	-	-	-	-	-	-	-	-	2	2	-
C214.5	3	2	2	-	-	-	-	-	-	-	-	-	2	2	-
C214.6	3	2	2	-	-	-	-	-	-	-	-	-	2	3	-
AVg.	3	2	2	-	-	-	-	-	-	-	-	-	2	2	-

C215/ CS8481 DATABASE MANAGEMENT SYSTEMS LABORATORY															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C215.1	3	2	2	-	-	-	-	-	-	-	-	-	2	2	-
C215.2	3	2	2	-	-	-	-	-	-	-	-	-	2	2	-
C215.3	3	2	2	-	-	-	-	-	-	-	-	-	2	2	-
C215.4	3	2	2	-	-	-	-	-	-	-	-	-	3	2	-
C215.5	3	2	2	-	-	-	-	-	-	-	-	-	2	2	-
C215.6	3	3	3	-	-	-	-	-	-	-	-	-	2	3	-
C215.7	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-
C215.8	-	-	-	-	-	-	-	-	3	-	3	-	-	-	-
C215.9	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-
C215.10	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
AVg.	**3**	2	2	-	-	-	-	3	3	3	3	**3**	2	2	-

C216/ CS8461 OPERATING SYSTEMS LABORATORY															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C216.1	3	2	2	-	-	-	-	-	-	-	-	-	3	2	1
C216.2	3	2	2	-	-	-	-	-	-	-	-	-	3	2	1
C216.3	3	2	2	-	-	-	-	-	-	-	-	-	3	2	1
C216.4	3	2	2	-	-	-	-	-	-	-	-	-	3	2	1
C216.5	3	2	2	-	-	-	-	-	-	-	-	-	3	2	1
C216.6	3	2	2	-	-	-	-	-	-	-	-	-	3	2	1
C216.7	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-
C216.8	-	-	-	-	-	-	-	-	3	-	3	-	-	-	-
C216.9	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-
C216.10	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
AVg.	3	2	2	-	-	-	-	3	3	3	3	**3**	**3**	**2**	**1**

C217/ HS8461 ADVANCED READING AND WRITING															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C217.1	-	-	-	-	-	-	-	-	2	3	-	3	-	-	-
C217.2	-	-	-	-	-	-	-	-	2	2	-	2	-	-	-
C217.3	-	-	-	-	-	-	-	-	2	3	-	3	-	-	-
C217.4	-	-	-	-	-	-	-	-	2	2	-	3	-	-	-
C217.5	-	-	-	-	-	-	-	-	3	2	-	3	-	-	-
C217.6	-	-	-	-	-	-	-	-	2	2	-	2	-	-	-
C217.7	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-
C217.8	-	-	-	-	-	-	-	-	3	-	3	-	-	-	-
C217.9	-	-	-	-	-	-	-	-	-	3	-	3	-	-	-

C217.10	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
AVg.	-	-	-	-	-	-	-	3	2	2	-	3	-	-	-

C301/MA8551 ALGEBRA AND NUMBER THEORY															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C301.1	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-
C301.2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-
C301.3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-
C301.4	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-
C301.5	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-
C301.6	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-
AVg	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-

C302/CS8591 COMPUTER NETWORKS															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C302.1	2	1	1	-	-	-	-	-	-	-	-	-	1	-	-
C302.2	2	1	1	-	-	-	-	-	-	-	-	-	1	-	-
C302.3	2	1	1	-	-	-	-	-	-	-	-	-	1	-	-
C302.4	3	2	2	-	-	-	-	-	-	-	-	-	2	2	-
C302.5	2	1	1	-	-	-	-	-	-	-	-	-	1	-	-
C302.6	3	2	2	-	-	-	-	-	-	-	-	-	2	-	-
AVg	2	1	1	-	-	-	-	-	-	-	-	-	1	2	-

C303/ EC8691 MICROPROCESSORS AND MICROCONTROLLERS															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C303.1	2	1	-	-	-	-	-	-	-	-	-	-	2	-	-
C303.2	2	1	-	-	-	-	-	-	-	-	-	-	2	-	-
C303.3	2	1	-	-	-	-	-	-	-	-	-	-	2	-	-
C303.4	2	1	-	-	-	-	-	-	-	-	-	-	2	-	-
C303.5	2	1	-	-	-	-	-	-	-	-	-	-	2	-	-
C303.6	3	2	1	-	-	-	-	-	-	-	-	-	2	-	-
AVg	2	1	1	-	-	-	-	-	-	-	-	-	2	-	-

C304/CS8501 THEORY OF COMPUTATION															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C304.1	2	1	1	-	-	-	-	-	-	-	-	-	2	-	-
C304.2	2	1	1	-	-	-	-	-	-	-	-	-	2	-	-
C304.3	3	2	2	-	-	-	-	-	-	-	-	-	2	-	-
C304.4	3	2	2	-	-	-	-	-	-	-	-	-	2	-	-
C303.5	3	2	2	-	-	-	-	-	-	-	-	-	2	-	-
C303.6	2	1	1	-	-	-	-	-	-	-	-	-	2	-	-
AVg	3	2	2	-	-	-	-	-	-	-	-	-	2	-	-

C305/CS8592 OBJECT ORIENTED ANALYSIS AND DESIGN															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C305.1	2	1	1	-	-	-	-	-	-	-	-	-	1	1	-
C305.2	3	2	2	-	-	-	-	-	-	-	-	-	1	1	-

C305.3	3	2	2	-	-	-	-	-	-	-	-	-	3	3	-
C305.4	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C305.5	3	2	2	-	-	-	-	-	-	-	-	-	2	2	-
C305.6	2	1	1	-	-	-	-	-	-	-	-	-	3	3	-
AVg	3	2	2	-	-	-	-	-	-	-	-	-	2	2	-

C306/ OCE551 AIR POLLUTION AND CONTROL ENGINEERING															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C306.1	2	-	2	-	-	-	2	-	-	-	-	2	-	-	-
C306.2	2	2	3	-	-	-	2	-	-	-	-	1	-	-	-
C306.3	3	2	3	-	1	-	2	-	-	-	-	1	1	-	-
C306.4	3	2	2	-	1	-	2	-	-	-	-	1	1	-	-
C306.5	2	2	3	-	-	-	2	-	-	1	-	2	-	-	-
C306.6	2	2	3	-	1	-	2	-	-	1	-	1	1	-	-
AVg	2	2	2	-	1	-	2	-	-	1	-	2	-	-	-

C307/EC8681 MICROPROCESSORS AND MICROCONTROLLERS LABORATORY															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C307.1	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-
C307.2	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-
C307.3	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-
C307.4	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-
C307.5	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-
C307.6	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-
C307.7	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-
C307.8	-	-	-	-	-	-	-	-	3	-	3	-	-	-	-
C307.9	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-
C307.10	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
AVg	2	1	1	-	-	-	-	3	3	3	3	3	-	-	-

C308/CS8582 OBJECT ORIENTED ANALYSIS AND DESIGN LABORATORY															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C308.1	3	2	2	-	2	-	-	-	-	-	-	-	1	3	-
C308.2	2	1	1	-	1	-	-	-	-	-	-	-	3	2	-
C308.3	3	2	2	-	3	-	-	-	-	-	-	-	2	2	-
C308.4	3	2	2	-	2	-	-	-	-	-	-	-	1	1	-
C308.5	3	2	2	-	1	-	-	-	-	-	-	-	1	2	-
C308.6	3	2	2	-	3	-	-	-	-	-	-	-	3	3	-
C308.7	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-
C308.8	-	-	-	-	-	-	-	-	3	-	3	-	-	-	-
C308.9	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-
C308.10	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
AVg	3	2	2	-	2	3	-	3	3	3	3	3	2	2	-

C309/CS8581 NETWORKS LABORATORY															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C309.1	3	2	2	-	2	-	-	-	-	-	-	-	2	1	1
C309.2	2	1	1	-	1	-	-	-	-	-	-	-	2	1	1
C309.3	3	2	2	-	3	-	-	-	-	-	-	-	2	1	1
C309.4	3	2	2	-	2	-	-	-	-	-	-	-	2	1	1
C309.5	3	2	2	-	1	-	-	-	-	-	-	-	2	1	1
C309.6	3	2	2	-	3	-	-	-	-	-	-	-	2	1	1
C309.7	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-
C309.8	-	-	-	-	-	-	-	-	3	-	3	-	-	-	-
C309.9	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-
C309.10	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
AVg.	**3**	2	2	**-**	**2**	3	**-**	3	3	3	3	**3**	**2**	**1**	**1**

C310/CS8651 INTERNET PROGRAMMING															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C310.1	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C310.2	3	2	2	1	-	-	-	-	-	-	-	-	2	2	-
C310.3	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C310.4	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C310.5	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C310.6	3	2	2	1	-	-	-	-	-	-	-	-	2	2	-
Avg	**2**	**1**	**1**	**1**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	2	2	**-**

C311/CS8691 ARTIFICIAL INTELLIGENCE															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C311.1	2	1	1	-	-	-	-	-	-	-	-	-	2	-	-
C311.2	2	**1**	**1**	-	-	-	-	-	-	-	-	-	2	-	-
C311.3	2	1	1	-	-	-	-	-	-	-	-	-	2	-	-
C311.4	2	**1**	**1**	-	-	-	-	-	-	-	-	-	2	-	-
C311.5	2	1	1	-	-	-	-	-	-	-	-	-	2	-	-
C311.6	2	**1**	**1**	-	-	-	-	-	-	-	-	-	2	-	-
AVg	2	1	1	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	2	**-**	**-**

C312/CS8601 MOBILE COMPUTING															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C312.1	2	**1**	**1**	-	-	-	-	-	-	-	-	-	-	-	-
C312.2	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-
C312.3	2	**1**	**1**	-	-	-	-	-	-	-	-	-	-	-	-
C312.4	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-
C312.5	2	**1**	**1**	-	-	-	-	-	-	-	-	-	-	-	-
C312.6	3	2	2	-	-	-	-	-	-	-	-	-	-	-	-
AVg	**3**	**1**	**1**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

C313/CS8602 COMPILER DESIGN															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3

C313.1	2	1	1	-	-	-	-	-	-	-	-	-	2	-	-
C313.2	2	1	1	-	-	-	-	-	-	-	-	-	2	-	-
C313.3	2	1	1	-	-	-	-	-	-	-	-	-	2	-	-
C313.4	2	1	1	-	-	-	-	-	-	-	-	-	2	-	-
C313.5	3	2	2	-	-	-	-	-	-	-	-	-	2	-	-
C313.6	3	2	2	-	-	-	-	-	-	-	-	-	2	-	-
AVg	2	1	1	-	-	-	-	-	-	-	-	-	2	-	-

C314/CS8603 DISTRIBUTED SYSTEMS															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C314.1	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-
C314.2	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-
C314.3	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-
C314.4	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-
C314.5	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-
C314.6	2	1	2	-	-	-	-	-	-	-	-	-	-	-	-
AVg	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-

C315/IT8076 SOFTWARE TESTING															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C315.1	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-
C315.2	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-
C315.3	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-
C315.4	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-
C315.5	3	-	-	1	-	-	-	-	-	-	-	-	-	-	-
C315.6	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-
AVg	2	1	1	1	-	-	-	-	-	-	-	-	-	-	-

C316/CS8661 INTERNET PROGRAMMING LABORATORY															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C316.1	3	2	2	1	-	-	-	-	-	-	-	-	2	2	-
C316.2	3	2	2	1	-	-	-	-	-	-	-	-	2	2	-
C316.3	3	2	2	1	-	-	-	-	-	-	-	-	2	2	-
C316.4	3	2	2	1	-	-	-	-	-	-	-	-	2	3	-
C316.5	3	2	2	1	-	-	-	-	-	-	-	-	2	2	-
C316.6	3	2	2	1	-	-	-	-	-	-	-	-	2	3	-
C316.7	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-
C316.8	-	-	-	-	-	-	-	-	3	-	3	-	-	-	-
C316.9	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-
C316.10	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
AVg	3	2	2	1	-	-	-	3	3	3	3	3	2	2	-

C317/CS8662 MOBILE APPLICATION DEVELOPMENT LABORATORY															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C317.1	3	2	-	-	-	-	-	-	-	-	-	-	3	2	-
C317.2	3	2	-	-	-	-	-	-	-	-	-	-	2	2	-
C317.3	3	2	-	-	-	-	-	-	-	-	-	-	2	2	-

C317.4	3	2	-	-	-	-	-	-	-	-	-	-	2	2	-
C317.5	3	2	-	-	-	-	-	-	-	-	-	-	2	3	-
C317.6	3	2	-	-	-	-	-	-	-	-	-	-	2	3	-
C317.7	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-
C317.8	-	-	-	-	-	-	-	-	3	-	3	-	-	-	-
C317.9	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-
C317.10	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
AVg	3	2	-	-	-	-	-	3	3	3	3	3	2	2	-

C318/CS8611 MINI PROJECT															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C318.1	3	2	2	1	-	-	-	-	-	-	-	-	-	-	-
C318.2	3	2	2	1	-	-	-	-	-	-	-	-	-	-	-
C318.3	3	2	2	1	-	-	-	-	-	-	-	-	-	-	-
C318.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C318.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C318.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AVg	3	2	2	1	-	-	-	-	-	-	-	-	-	-	-

C319/HS8581 PROFESSIONAL COMMUNICATION															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C319.1	-	-	-	-	-	-	-	-	2	2	-	2	-	-	-
C319.2	-	-	-	-	-	-	-	-	3	2	-	3	-	-	-
C319.3	-	-	-	-	-	-	-	-	2	3	-	3	-	-	-
C319.4	-	-	-	-	-	-	-	-	3	2	-	3	-	-	-
C319.5	-	-	-	-	-	-	-	-	2	2	-	3	-	-	-
C319.6	-	-	-	-	-	-	-	-	2	3	-	2	-	-	-
C319.7	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-
C319.8	-	-	-	-	-	-	-	-	3	-	3	-	-	-	-
C319.9	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-
C319.10	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
AVg	-	-	-	-	-	-	-	3	2	2	3	3	-	-	-

C401/MG8591 PRINCIPLES OF MANAGEMENT															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C401.1	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-
C401.2	-	-	-	-	-	-	-	-	2	-	2	-	-	-	-
C401.3	-	-	-	-	-	-	-	2	2	-	2	-	-	-	-
C401.4	-	-	-	-	-	-	-	2	2	2	-	3	-	-	-
C401.5	-	-	-	-	-	-	-	-	2	2	2	-	-	-	-
C401.6	-	-	-	-	-	2	-	2	2	2	-	3	-	-	-
AVg	-	-	-	-	-	2	-	2	2	2	2	3	-	-	-

C402/CS8792 CRYPTOGRAPHY AND NETWORK SECURITY															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C402.1	2	1	1	-	-	-	-	-	-	-	-	-	3	2	-
C402.2	2	1	1	-	-	-	-	-	-	-	-	-	3	2	-
C402.3	3	2	2	1	-	-	-	-	-	-	-	-	2	3	-
C402.4	3	2	2	1	-	-	-	-	-	-	-	-	2	3	-
C402.5	3	2	2	1	-	-	-	-	-	-	-	-	2	3	-
C402.6	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
AVg	3	2	2	1	-	-	-	-	-	-	-	-	2	2	-

C403/CS8791 CLOUD COMPUTING															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C403.1	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C403.2	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C403.3	3	2	2	1	-	-	-	-	-	-	-	-	2	3	-
C403.4	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C403.5	3	2	2	1	-	-	-	-	-	-	-	-	2	3	-
C403.6	3	2	2	1	-	-	-	-	-	-	-	-	2	3	-
AVg	3	2	2	1	-	-	-	-	-	-	-	-	2	3	-

C404/CS8079 HUMAN COMPUTER INTERACTION															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C404.1	2	-	2	-	-	-	2	-	-	-	-	2	-	-	-
C404.2	2	2	3	-	-	-	2	-	-	-	-	1	-	-	-
C404.3	3	2	3	-	1	-	2	-	-	-	-	1	1	-	-
C404.4	3	2	2	-	1	-	2	-	-	-	-	1	1	-	-
C404.5	2	2	3	-	-	-	2	-	-	1	-	2	-	-	-
C404.6	2	2	3	-	1	-	2	-	-	1	-	1	1	-	-
AVg	2	2	2	-	1	-	2	-	-	1	-	2	-	-	-

C405/IT8075 SOFTWARE PROJECT MANAGEMENT															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C404.1	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-
C404.2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C404.3	1	-	2	1	1	-	-	-	-	-	-	-	-	-	-
C404.4	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
C404.5	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AVg	2	0.8	0.4	0.2	0.2	-	-	-	-	-	-	-	-	-	-

C406/CS8711 CLOUD COMPUTING LABORATORY															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C406.1	2	1	1	1	1	-	-	-	-	-	-	-	2	2	2
C406.2	2	1	1	1	1	-	-	-	-	-	-	-	2	2	2
C406.3	2	1	1	1	1	-	-	-	-	-	-	-	2	2	2

C406.4	3	2	2	1	2	-	-	-	-	-	-	-	2	**3**	2
C406.5	2	1	1	1	1	-	-	-	-	-	-	-	2	**2**	2
C406.6	3	2	2	1	2	-	-	-	-	-	-	-	2	**3**	2
C406.7	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-
C406.8	-	-	-	-	-	-	-	-	3	-	3	-	-	-	-
C406.9	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-
C406.10	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
AVg	2	1	1	1	1	-	-	3	3	3	3	**3**	2	2	2

C407/IT8761 SECURITY LABORATORY															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C407.1	3	2	2	-	-	-	-	-	-	-	-	-	2	3	-
C407.2	3	2	2	-	-	-	-	-	-	-	-	-	2	3	-
C407.3	3	2	2	-	-	-	-	-	-	-	-	-	2	3	-
C407.4	3	2	2	-	-	-	-	-	-	-	-	-	2	3	-
C407.5	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C407.6	3	2	2	-	-	-	-	-	-	-	-	-	2	3	-
C407.7	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-
C407.8	-	-	-	-	-	-	-	-	3	-	3	-	-	-	-
C407.9	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-
C407.10	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
AVg	**3**	**2**	**2**	-	-	-	-	3	3	3	3	**3**	2	3	-

C408/CS8080 INFORMATION RETRIEVAL TECHNIQUES															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C408.1	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C408.2	3	2	2	1	-	-	-	-	-	-	-	-	2	3	-
C408.3	3	2	2	1	-	-	-	-	-	-	-	-	2	3	-
C408.4	3	2	2	1	-	-	-	-	-	-	-	-	2	3	-
C408.5	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C408.6	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
AVg	**3**	2	2	**1**	-	-	-	-	-	-	-	-	2	**3**	-

C409/GE8076 PROFESSIONAL ETHICS IN ENGINEERING															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C409.1	1	1	-	-	-	-	-	-	-	-	-	-	-	2	2
C409.2	2	2	-	-	-	-	-	-	-	-	-	-	-	3	2
C409.3	2	2	-	-	-	-	-	-	-	-	-	-	-	3	2
C409.4	2	2	-	-	-	-	-	-	-	-	-	-	-	3	2
C409.5	1	1	-	-	-	-	-	-	-	-	-	-	-	2	2
AVg	**2**	**2**	-	-	-	-	-	-	-	-	-	-	-	**3**	**2**

C410/CS8811 PROJECT WORK															
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C410.1	3	2	2	1	-	2	2	2	2	2	2	1	1	1	1
C410.2	3	3	3	3	2	2	2	2	2	2	2	1	2	2	2
C410.3	3	3	3	2	2	2	2	2	2	2	2	1	2	2	2
C410.4	3	3	3	3	2	2	2	2	2	2	2	1	2	2	2
C410.5	3	3	3	2	2	2	2	2	2	2	2	1	2	2	2
C410.6	3	3	3	3	2	2	2	2	2	2	2	1	2	2	2
AVg	3	3	3	3	2	2	2	2	2	2	2	1	2	2	2