SEMESTER III

Sr.No	Course Category	Course Code	Course Title	Hours per Week			Credits	Maximum Marks				No. of hours for ESE
				L	T	P		Mid Sem Exam	Continual Assessment	End Sem Examination	Total	
1	PCC	**24IT301T**	Discrete Mathematics	**3**	**1**	**-**	**4**	**20**	**20**	**60**	**100**	**3**
2	PCC	**24IT302T**	Data Structures	**3**	**-**	**-**	**3**	**20**	**20**	**60**	**100**	**3**
3	PCC	**24IT302P**	Data Structures Lab	**-**	**-**	**2**	**1**	**-**	**25**	**25**	**50**	**-**
4	PCC	**24IT303T**	Computer Network	**2**	**-**	**-**	**2**	**10**	**10**	**30**	**50**	**1.5**
5	PCC	**24IT303P**	Computer Network Lab	**-**	**-**	**2**	**1**	**-**	**25**	**25**	**50**	**-**
6	PCC	**24IT304T**	Computer Architecture and Organization	**2**	**1**	**-**	**3**	**10**	**10**	**30**	**50**	**1.5**
7	PCC	**24IT305P**	Software Lab - III	**-**	**-**	**2**	**1**	**-**	**25**	**25**	**50**	**-**
8	VEC	**24IT307T**	Value Education Course	**3**	**-**	**-**	**3**	**20**	**20**	**60**	**100**	**3**
9	MDM	**24IT331M**	MDM – **I** Fundamentals of Cloud Computing	**2**	**-**	**-**	**2**	**10**	**10**	**30**	**50**	**1.5**
10	SEC	**24IT341P**	Career Development - -III	**-**	**-**	**2**	**1**	**-**	**50**	**-**	**50**	**-**
11	ELC	**24IT306P**	Micro Project - I*****	**-**	**-**	**2**	**1**	**-**	**50**	**-**	**50**	**-**
			Total	**15**	**2**	**10**	**22**	**90**	**265**	**345**	**700**	**-**

***Field Project or Community engagement project in the major discipline**

		2024	NEP 2.0	Applicable for 2025-26
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THIRD SEMESTER

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation			
						MSE	CA	ESE	Total
24IT301T	Discrete Mathematics	3	1	-	4	20	20	60	100

Course Objectives	Course Outcomes
The aim of this course is • To understand the concepts of graph theory and related algorithm concepts. • To understand the concepts of algebraic structures, logic, set theory.	**On completion of the course, students will be able to** • Form truth tables, proving results by truth tables. • Observe the various types of sets, functions and relations. • Recognize definition and properties of algebraic structures. • Apply concepts of graph theory, shortest path algorithms, concepts of trees and minimum spanning tree to solve engineering problems. • Apply counting techniques to solve combinatorial problems.

Unit I : Mathematical logic & Set theory:	**[9Hrs]**
Introduction - Statements and notations, Connectives, Conditional statements and tautologies, Principle of Mathematical Induction, Basic concepts of set theory, Validity of the argument, Operations on sets, Power set.	
Unit II : Relation & Function:	**[9Hrs]**
Relation, types of relation, Matrix & Graphical representation of relation, Composition of relation, Partial ordering, Partial ordered set, Hasse diagram. Definition and types of function, Composition of function, Characteristic function.	
Unit III : Algebraic Structure & Lattices:	**[9Hrs]**
Binary operations, Group, Problems on groups, subgroup, Lagrange's theorem. Ring, Commutative ring, Ring with unity, Ring with zero divisor, Integral domain, and field. Lattice.	
Unit IV : Graph theory & Trees:	**[9Hrs]**
Types of graphs, Isomorphic digraph, Paths and circuits, Reachability and connectedness, Matrix representation of graphs, Euler path and Euler circuit. **Tree:** Trees, Binary tree, spanning tree, Weighted graphs, Prim's algorithm, Kruskal's algorithm.	
Unit V : Combinatorics :	**[9Hrs]**
Generating Functions, Recurrence Relations, Counting: Permutations & Combinations, Pigeonhole Principle with Simple Applications.	

Text Books

S.N	Title	Authors	Edition	Publisher
1.	Discrete Mathematical Structures	Kolman, Busby & Ross	3rd	PHI
2.	Discrete Mathematical Structures with Applications to Computer Science	Tremblay & Manohar		Tata McGraw- Hill.
3.	Discrete mathematics	Swapan kumar Sarkar		S. Chand publications

Reference Books

S.N	Title	Authors	Edition	Publisher
1.	Discrete Maths for Computer Scientists & Mathematicians	Mott, Kandel, Baker		Pearson
2.	Discrete Mathematics	Lipschutz		McGraw Hill Professional,
3.	Elements of Discrete Mathematics	C. L. Liu		McGraw Hill Education India.

THIRD SEMESTER

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation			
						MSE	CA	ESE	Total
24IT302T	Data Structures	3	-		3	20	20	60	100

Course Objectives	Course Outcomes
This course is intended • To understand basics of algorithm its analysis • To Learn the linear data structure like stack, queue linked list • To emphasize implementation of linear data structure • To study implement nonlinear data structures like tree;graph • To use appropriate data structures for solving variousApplications depending on behavioral properties.	**Students will be able to** • Understand the concept of analysis of algorithms, andimplement various sorting searching algorithm • Implement ADT such as Stack; Queue • Illustrate the operation on linked • Select and use appropriate non-Linear data structuresfor data representation • Use an appropriate non-Linear data structures like graph and hashing techniques for data representationfor solving data organization problem

Unit I: Algorithm, Searching Sorting	**[9Hrs]**
An introduction to algorithm, time and space analysis of algorithm, general concept of data structure, types of data structures. asymptotic notations-Big O notations, omega notation & theta notation. Average , Best, Worst case analysis, Searching-Linear andBinary search, Selection sort, Bubble sort, Insertion sort, Shell sort, quick sort.	
Unit II: Stacks and Queues	**[9Hrs]**
Definition and Terminology, ADT stack and its operations, applications of stacks: Expression conversion and evaluation. ADT queue and its operation, Types of queue: Simple queue, circular queue, priority queue, double ended queue. Application ofqueues.	
Unit III: Linked Lists	**[9Hrs]**
Singly linked lists: Representation in memory, operation on linked list, algorithms: Traversing, searching, insertion , deletion , Types of linked list: Singly linked list, Circular linked list, Doubly linked list, Circular doubly linked list; Application of Linked Lists.	
Unit IV: Trees Data Structure	**[9Hrs]**
Trees: Basic Tree Terminologies, representation of tree. Different types of Trees: Binary Tree, Threaded Binary Tree, Binary Search Tree, AVL Tree, B Tree, B+ Tree. Heap sort.,Tree traversals algorithm-Inorder, Preorder & Postorder traversal, Tree operations , Applications of trees.	
Unit V:Graph & Hashing Techniques	**[9Hrs]**
Graph: Basic Terminologies and Representations, Types of Graph, Traversal algorithms: Depth First search and Breadth FirstSearch, Spanning trees: Minimum cost spanning tree. Topological sort, Introduction to Hashing, Hashing Techniques & Collision handling Mechanism, Problem based on hashing.	

Text Books

Sr.No.	Title	Authors	Edition	Publisher
1	Fundamentals of Data Structures in C++	E. Horowitz, D. Mehta, S. Sahni	2nd	Silicon Press
2	Programming with C and Data structures	R.S. Bichkar	1st	Universities Press
3	Data structure Algorithm	Algorithm Alferd V. Aho, John E.	1st	Pearson

Reference Books

Sr.No.	Title	Authors	Edition	Publisher
1	Data Structures Through C	Kanetkar, Yashavant	2nd	BPB publication
2	Data Structures : A Pseudocode Approach With C	T. H. Cormen, C. E. Leiserson, R.L.Rivest,	3rd	MITPress
3	Data Structure And Algorithm	Pandey, Hari Mohan	2nd	University Science Press

Online Resources

1	https://www.geeksforgeeks.org/data-structures/
2	https://www.w3schools.com/dsa/dsa_intro.php
3	https://www.javatpoint.com/data-structure-tutorial
4	https://www.programiz.com/dsa

THIRD SEMESTER

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation			
						MSE	CA	ESE	Total
24IT302P	Data Structures Lab	-	-	2	1	-	25	25	50

Course Objectives	Course Outcomes
This course is intended	**Students will be able to**
• To understand basic of algorithm; its analysis • To Learn the linear data structure like stack, queue linked list • To give emphasis on implementation of linear data structure • To study implement nonlinear data structure like tree graph • To use appropriate data structures for solving various applications depending on behavioralproperties.	• Understand the concept of analysis of algorithms, and implement various sorting searching algorithm • Implement ADT such as Stack Queue • Illustrate the operation on linked list throughimplementation • Select and use appropriate non Linear data structureslike tree for data representation • Use an appropriate non Linear data structures like graph and hashing techniques for data representationfor solving data organization problem

Expt. No.	Experiments based on
1	Searching algorithm
2	Sorting algorithm
3	Implementation of ADT-Stack
4	Implementation of ADT-Queue
5	Implementation of Linked operation
6	Implementation of nonlinear data structure-TREE
7	Implementation of BST tree traversing
8	Implementation of nonlinear data structure-Graph Algorithm (DFS; BFS)
9	Open ended practical based on data structure
10	Practical based on content beyond syllabus.

Text Books

Sr.No.	Title	Authors	Edition	Publisher
1	Fundamentals of Data Structures in C++	E. Horowitz, D. Mehta, S. Sahni	2nd	Silicon Press
2	Programming with C and Data structures	R.S. Bichkar	1st	Universities Press
3	Data structure Algorithm	Alferd V. Aho, John E.	1st	Pearson Education

Reference Books

Sr.No.	Title	Authors	Edition	Publisher
1	Data Structures Through C	Kanetkar, Yashavant	2nd	BPB publication
2	Data Structures : A Pseudocode Approach With C	T. H. Cormen, C. E. Leiserson, R.L.Rivest,	3rd	MITPress
3	Data Structure And Algorithm	Pandey, Hari Mohan	2nd	University Science Press

Online Resources

1	https://www.geeksforgeeks.org/data-structures/
2	https://www.w3schools.com/dsa/dsa_intro.php
3	https://www.javatpoint.com/data-structure-tutorial
4	https://www.programiz.com/dsa

THIRD SEMESTER

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation			
						MSE	CA	ESE	Total
24IT303T	Computer Network	2	-		2	10	10	30	50

Course Objectives		Course Outcomes
This course is intended ● To delivers the fundamentals of computer network ● To discuss and focuses on network architectures, protocols and applications,techniques for encoding and modulation.		**Students will be able to** ● Learn broad overview of computer networking and the Internet ● Interpret several important link-layer concepts and technologies which reflects a modern view of the network layer's role in computer networking. ● Use pedagogic approach to discuss transport-layer principles and Study in-depth secure communication in computer networks which can be defended from intruders

Unit I: Fundamentals of Computer Networks and Internet Computer	**[10Hrs]**
Introduction to Computer Networks, Network Topologies, What Is the Internet?, The Network Edge and Network Core, Delay, Loss, and Throughput in Packet-Switched Networks, the OSI & TCP/IP Models, , WiFi: 802.11 Wireless LANs, Introduction to Cellular Networks.	
Unit II: The Link Layer and the Network Layer	**[10Hrs]**
Introduction to the Link Layer, Error-Detection and -Correction Techniques, Multiple Access Links and Protocols, Switched Local Area Networks, The Network Layer: The Internet Protocol (IP): IPv4, Addressing, IPv6, Routing Algorithms, The Internet Control Message Protocol, Network Management and SNMP.	
Unit III: Transport, Applications, and Network Security	**[10Hrs]**
Transport Layer: UDP and TCP, Principles of Reliable Data Transfer, TCP Congestion Control, DNS, Application Layer Principles of Network Applications, HTTP, DNS, and Web Communication, Network Security: Principles of Cryptography, Network-Layer Security (IPSec & VPN), Firewalls and Intrusion Detection Systems	

Text Books

Sr. No.	Title	Authors	Edition	Publisher
1	Computer Networking -A Top-Down Approach	James F. Kurose	7th	Pearson Publication
2	Data Communications and Networking	Fourauzan B.	3rd	TataMcGraw-Hill Publications,
3	Computer Networks	Tanenbaum A.	4th	PHI
4	Cryptography and Network Security	William Stallings	5th	Prentice Hall

Reference Books

Sr. No.	Title	Authors	Edition	Publisher
1	An Engineering Approach to Computer Networking	Keshav S	2nd	Pearson Education,
2	Computer Networks and Internet	Comer D.,	2nd	Pearson Education,
3	Local Area Networks	S.K. Basandra & S Jaiswal	3rd	Galgotia Publications

Online Resources

1	https://www.geeksforgeeks.org/computer-network-tutorials/
2	https://www.javatpoint.com/computer-network-tutorial
3	https://www.scaler.com/topics/computer-network/
4	https://www.scaler.com/topics/computer-network/

		July 2024	NEP 2.0	Applicable for 2025-26
Chairman - BoS	Dean – Academics	Date of Release	Version	

THIRD SEMESTER

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation			
						MSE	CA	ESE	Total
24IT303P	Computer Network Lab		-	2	1	-	25	25	50

Course Objectives	Course Outcomes
This course is intended ● To delivers the fundamentals of computernetwork ● To discuss and focuses on network architectures, protocols and applications,techniques for encoding and modulation.	**Students will be able to** ● Learn and apply the concepts of computer network for real time system connection and communication. ● Analyze data link layer protocol peer to peer mode for handling data and Apply the knowledge of network layer concepts for subnetting. ● Implement the routing protocols for network route identification for secure data transmission.

Expt. No.	Experiments based on
1	Study of different types of Network cables and Network Devices practically implement the cross wired cable and straight through cable using clamping tool
2	Connection of Local Area Network and demonstrate the data sharing and hardware sharing
3	Classification of IP address and subnetting.
4	Error detection and correction Techniques
5	Demonstration of Sliding Window Protocol
6	Implement Routing protocol in Computer network.
7	Analyze Wireshark Packet Analyzer Tool.
8	Implement encryption and decryption technique.

Text Books

Sr.No.	Title	Authors	Edition	Publisher
1	Computer Networking -A Top-Down Approach,	James F. Kurose	7th	Pearson Publication
2	Data Communications and Networking	Fourauzan B.	3rd	Tata McGraw-Hill Publications,
3	Computer Networks	Tanenbaum A.	4th	PHI

Reference Books

Sr.No.	Title	Authors	Edition	Publisher
1	An Engineering Approach to Computer Networking	Keshav S	2nd	Pearson Education,
2	Computer Networks and Internet	Comer D.,	2nd	Pearson Education,
3	Local Area Networks	S.K.Basandra & S. Jaiswal	3rd	Galgotia Publications

Online Resources

1	http://vlabs.iitkgp.ernet.in/ant/
2	https://ns3simulation.com/list-of-network-simulators/
3	https://netsim.erinn.io/

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THIRD SEMESTER

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation			
						MSE	CA	ESE	Total
24IT304T	Computer Architecture and Organization	2	1	-	3	10	10	30	50

Course Objectives	Course Outcomes
This course is intended • To understand the design of the various functional units and components of computers. • To make the students understand the basic operations involved in execution of an instruction. • To explain the basic concept of interrupts and their usage to implement I/O control and data transfers. • To explain the function of each element of a memory hierarchy.	**Students will be able to** • Study and apply knowledge of processor instruction sets and its execution and Demonstrate computer arithmetic operations on integer and floating-point numbers. • Illustrate control unit operation and the memory system. • Explain concepts of I/O organization and pipelining of a processor.

Unit I: Basic structure of computer	**[10Hrs]**
Functional Units, Architecture of a small accumulator based CPU, Instructionexecution cycle, Addressing modes, Instruction Format. Execution of a complete instruction, types of Buses, Single, multiple busstructure. **Computer Arithmetic:** Booth's algorithm, Unsigned binary division, IEEE Floating-Point representation, Floating Point arithmetic.	
Unit II: Control Unit	**[10Hrs]**
Control Unit: Introduction, Micro-operations, Hardwired control unit, Micro programmed control unit. **The Memory System:** Internal organization of memory chip, Virtual memory, Memory Management requirements, I/O modules, Programmed I/O, Interrupt- Driven I/O.	
Unit III: Pipelining and parallel Processing	**[10Hrs]**
Pipelining: Introduction, Pipeline organization, Pipelining issues, Memory delays, Branch delays, Parallel Processing, Types of parallel processor systems, Vector processing Processors: RISC & CISC Processors, superscalar processor.	

Text Books

Sr.No.	Title	Authors	Edition	Publisher
1	Computer Organization	V. Carl Hamacher	4th	Mc GrawHill
2	Computer Architecture & Organization	John P Hayes	3rd	Mc GrawHil

Reference Books

Sr.No.	Title	Authors	Edition	Publisher
1	Computer Architecture & Organization	William Stallings	9th	Pearson
2	Computer Organization and Design	David A.Patterson & John L. Hennessy Morg.	4th	

Online Resources

1	https://www.geeksforgeeks.org/computer-organization-basic-computer-instructions/
2	https://www.javatpoint.com/computer-instructions

THIRD SEMESTER

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation			
						MSE	CA	ESE	Total
24IT305P	Software Lab - III	-	-	2	1	-	25	25	50

Course Objectives	Course Outcomes
This course is intended • To develop required computer hardware skills. • To acquire the competency such as Identify faults, troubleshoot, repair and do preventive maintenance of computer system and its Peripherals.	**Students will be able to** ● Learn & Identify computer peripherals and Microprocessor kit. ● Demonstrate the installation of Operating Systems and device drivers. ● Interpret the configuring and maintenance process of various components in computer system and peripheral devices. ● Identify various faults, repair them and learn how to maintain computer system and its peripherals.

Expt. No.	Experiments based on
1	Study of computer peripherals. Processor, Motherboard, Hard disk, CD/DVD ROM, Monitor, SMPS,Safety Precautions.
2	Configuration of BIOS.
3	Assembling of Personal Computer.
4	Partitioning Hard disk
5	Installation of Operating System (windows, Linux, ubuntu etc).
6	Execution of basic commands (Unix, Linux, ubuntu etc).
7	Execution of basic networking commands.
8	WI-FI Basics.

Text Books

Sr. No	Title	Authors	Edition	Publisher
1	Computer Installation and Servicing	D Bala Subramanian	2nd	Tata McGraw Hill Education private Limited
2	The complete PC Upgrade & Maintenance Guide	Mark Minasi	16th	BPB Publications
3	IBM PC and clones	Govindarajalu	2nd	Tata McGraw Hill Education private Limited

Online Resources

1	https://www.computerhope.com/issues/ch001781.htm
2	https://www.javatpoint.com/linux-commands
3	https://www.geeksforgeeks.org/basic-linux-commands/

THIRD SEMESTER

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation			
						MSE	CA	ESE	Total
24IT307T	Value Education Course	3	-	-	3	20	20	60	100

Course Objectives	Course Outcomes
This course is intended Development of a holistic perspective through self-exploration and development of clarity about harmony between self, family, society and nature.	**Students will be able to** • Demonstrate awareness about self and their surroundings and its interdependence. • Understand concepts of aspirations and happiness. • Recognize and explain the nine universal values in relationship and their application in visualizing a harmonious society. • Discuss concepts of conservation of nature and harmony and reusability. • Identify the scope of eco-friendly systems for enriching institutions.

Unit I : Introduction	**[9Hrs]**
Purpose and motivation for the course, Self-Exploration–what is it? - Its content and process; 'Natural Acceptance' and Experiential Validation- as the process for self-exploration, Continuous Happiness and Prosperity- A look at basic Human Aspirations , Right understanding, Relationship and Physical Facility- the basic requirements for fulfillment of aspirations of every human being with their correct priority , Understanding Happiness and Prosperity correctly- A critical appraisal of the current scenario , Method to fulfill the above human aspirations: understanding and living in harmony at various levels.	
Unit II: Understanding Harmony	**[9Hrs]**
Understanding human being as a co-existence of the sentient 'I' and the material 'Body' , Understanding the needs of Self ('I') and 'Body' - happiness and physical facility , Understanding the Body as an instrument of 'I' (I being the doer, seer and enjoyer) ,Understanding the characteristics and activities of 'I' and harmony in 'I' , Understanding the harmony of I with the Body: Sanyam and Health; correct appraisal of Physical needs, meaning of Prosperity in detail , Programs to ensure Sanyam and Health.	
Unit III: Values in relationships	**[9Hrs]**
Understanding values in human-human relationship; meaning of Justice (nine universal values in relationships) and program for its fulfillment to ensure mutual happiness; Trust and Respect as the foundational values of relationship , Understanding the meaning of Trust; Difference between intention and competence , Understanding the meaning of Respect, Difference between respect and differentiation; the other salient values in relationship , Understanding the harmony in the society (society being an extension of family): Resolution, Prosperity, fearlessness (trust) and co-existence as comprehensive Human Goals , Visualizing a universal harmonious order in society- Undivided Society, Universal Order- from family to world family.	
Unit IV: Co-existing with nature	**[9Hrs]**
Understanding the harmony in Nature , Interconnectedness and mutual fulfillment among the four orders of nature- recyclability and self-regulation in nature , Understanding Existence as Coexistence of mutually interacting units in all-pervasive space ,Holistic perception of harmony at all levels of existence. Include practice sessions to discuss human being as cause of imbalance in nature (film "Home" can be used), pollution, depletion of resources and role of technology etc.	
Unit V: Holistics approach for engineers	**[9Hrs]**
Natural acceptance of human values , Definitiveness of Ethical Human Conduct , Basis for Humanistic Education, Humanistic Constitution and Humanistic Universal Order , Competence in professional ethics: a. Ability to utilize the professional competence for augmenting universal human order b. Ability to identify the scope and characteristics of people friendly and eco-friendly production systems, c. Ability to identify and develop appropriate technologies and management patterns for above production systems. , Case studies of typical holistic technologies, management models and production systems , Strategy for transition from the present state to Universal Human Order: a. At the level of individual: as socially and ecologically responsible engineers, technologists and managers b. At the level of society: as mutually enriching institutions and organizations ,Sum up	

Text Books

Sr.No.	Title	Authors	Edition	Publisher
1	Human Values and Professional Ethics	Gaur, Sangal, Bagaria	2010	Excel Books, New Delhi

Reference Books

Sr.No.	Title	Authors	Edition	Publisher
1	Jeevan Vidya: Ek Parichaya	A. Nagaraj	1999	Jeevan Vidya Prakashan, Amarkantak
2	Human Values	A.N. Tripathi	2004	New Age Intl. Publishers, New Delhi
3	The Story of My Experiments with Truth	M.K.Gandhi	2009	Fingerprint! Publishers

THIRD SEMESTER

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation			
						MSE	CA	ESE	Total
24IT331M	MDM - I Fundamentals of Cloud Computing	2	-	-	2	10	10	30	50

Course Objectives	Course Outcomes
This course is intended • Gain a solid understanding of cloud computing concepts, including service models (IaaS, PaaS, SaaS) and deployment models (public, private, hybrid). • Apply Cloud Concepts in Real-World Scenarios	**Students will be able to** • Explain the role of networking & OS components in cloud environments. • Choose the right cloud model based on specific use cases. • Apply knowledge of cloud reference model in real world
Unit I: Basics of N/W or OS	**[10Hrs]**
What is Computer Networks? Overview of computer networks, Understanding network protocols (TCP/IP, HTTP, etc.) Basics of network architecture and communication Introduction to operating systems, Key components of an OS (process management, memory management, file systems) Basic of distributed OS, Role of the OS in cloud environments	
Unit II: Overview of Cloud Computing	**[10Hrs]**
Definition of cloud computing, Evolution of cloud technology, Why need of cloud computing, Characteristics of cloud computing, Pros and cons of cloud computing, Challenges in adopting cloud solutions, Cloud Service Models: Infrastructure as a Service (IaaS), Platform as a Service (PaaS), Software as a Service (SaaS), Comparison and use cases, Cloud Deployment Models: Public cloud, private cloud, hybrid cloud, Considerations for choosing a deployment model, Security implications.	
Unit III: Cloud Providers	**[10Hrs]**
Overview of major cloud service providers (e.g., AWS, Azure, Google Cloud), Understanding their offerings and pricing models, Introduction to Amazon Web Services (AWS), GCP, and Microsoft Azure.	

Reference Books

S.N	Title	Authors	Edition	Publisher
1.	Computer Networks	Andrew S. Tanenbaum	5	Prentice Hall PTR,
2.	Operating System Concepts	Abraham Silberschatz, Greg Gagne, and Peter Baer Galvin	8	Wiley
3.	Cloud Computing Principles and Paradigms	Rajkumar Buyya	1st	Wiley

Web Resources:

1. GeeksforGeeks : https://www.geeksforgeeks.org/

THIRD SEMESTER

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation			
						MSE	CA	ESE	Total
24IT341P	Career Development III	-	-	2	1	-	50	-	50

Course Objectives	Course Outcomes
This course is intended • Imparting aptitude training is to make students able to critically evaluate various real-life situations by resorting to an analysis of key issues and factors. • Aptitude Training helps them to demonstrate various principles involved in solving mathematical problems and thereby reducing the time taken for performing job functions. • To categorize, apply, and use the thought process to distinguish between concepts of Quantitative methods.	**Students will be able to** • Understand the concepts of Number system, Number series, and Analogy. • Understand the concepts of Simple Equation and Percentage. • Understand the concepts of ratio, proportions, partnership, and ages. • Understand the concepts of Profit and Loss and Discount. • Understand the concepts of Simple and Compound Interest.

Unit I	**[9Hrs]**
Number System: - Divisibility Test, LCM/HCF Problems, Factorization, Remainder Theorem, Successive Division. Number Series:- Missing Number Series, Wrong Number series, Letter Series, Analogy (Number, Letter, Word, Non Verbal analogy Key Skills and Abilities, Goal & Interests	
Unit II	**[9Hrs]**
Simple Equations Percentage: - Percentage to ratio conversion, Successive Percentage, Increase Decrease of Percentage, etc. Ambition & Knowledge,	
Unit III	**[9Hrs]**
Ratio & Proportion:- Joining of two ratios, Proportion, Mean Proportions, Problems on ages Partnership Problems, true potential of your Branch of Engineering, Engineering Principle From Human Body	
Unit IV	**[9Hrs]**
Profit Loss:- Concept of Profit loss, Relation between CP SP Profit and Loss, Problems on Profit Loss. Discount:- Successive Discount, Relation between MP Discount and Selling Price, Problems based on Discount.Critical Creative & System Thinking, Cornell Note Taking System,	
Unit V	**[9Hrs]**
Simple Interest, Compound Interest, Engineering Habits of mind, need to think Creatively	

Text Books

S.N	Title	Authors	Edition	Publisher
1	Quantitative Aptitude By R. S. Aggarwal	R.S. Aggarwal	--	S.Chand
2	Quantitative Aptitude	Shripad Deo	--	Allied Publishers Pvt Ltd
3	A Modern Approach to Verbal & Non-Verbal Reasoning	R.S. Aggarwal	--	

Reference Books

S.N	Title	Authors	Edition	Publisher
1	Quantitative Aptitude for CAT	Arun Sharma	_	MC Graw Hill

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Chairman - BoS	Dean – Academics	Date of Release	Version	