CSE / CSE (AIML) / CSE (IOT-CYS-BCT) 2021 – 2025 Batch
3rd Semester Syllabus (Odd Semester, 2022)

Sr. No	Type of Course	Course Code	Course Title	Credits
Theoretical Papers				
1	Engineering Science Course	ESC301	Analog Electronic Circuits	**3**
2	Professional Core Courses	PCC-CS301	Data Structure & Algorithms	**3**
3	Professional Core Course	PCC-CS302	Object Oriented Programming using JAVA	**2**
4	Engineering Science Course	ESC302	Digital Electronics	**3**
5	Basic Science Course	BSC301	Mathematics-III	**2**
6	Humanities and social sciences including Management Courses	HSMC302	Universal Human Values - III (ESP - III)	**2**
Practical Papers				
7	Professional Core Courses	PCC-CS391	Data Structure & Algorithms Laboratory	**2**
8	Engineering Science Course	ESC392	Digital Electronics Laboratory	**2**
9	Professional Core Courses	PCC-CS392	IT Workshop Practical (MATLAB/JAVA/Android)	**2**
Sessional Papers				
10	Humanities and social sciences including Management Courses	HSMC381	Humanities – I (Technical Report Writing using Latex)	**1**
11	Humanities and social sciences including Management Courses	HSMC382	Universal Human Values - III (SDP - III)	**1**
12	Mandatory Additional Requirements (MAR)	MC381	Mandatory Additional Requirements (MAR)	**0**
13	Project	PROJ-CS301	Innovative Project - I	**1**
14	MOOCs (Mandatory for Honours)	MOOC 3	Massive Open Online Course (Mandatory for B.Tech(Honours)) [Optional for others]	**1**
Total Credit Points of Semester [for B.Tech]				**24**
Total Credit Points of Semester [for B.Tech (Hons.)]				**25**

Analog Electronic Circuits
Code: ESC301
Credit: 3

Module-1:

1. Filters and Regulators: Capacitor filter, π-section filter, ripple factor, series and shunt voltage regulator, percentage regulation, 78xx and 79xx series, concept of SMPS.
2. Transistor Biasing and Stability: Q-point, Self-Bias-CE, Compensation techniques, h-model of transistors. Expression for voltage gain, current gain, input and output impedance, trans-resistance &trans-conductance; Emitter follower circuits, High frequency model of transistors.

Module -2:

1. Transistor Amplifiers: RC coupled amplifier, functions of all components, equivalent circuit, derivation of voltage gain, current gain, input impedance and output impedance, frequency response characteristics, lower and upper half frequencies, bandwidth, and concept of wide band amplifier.
2. Feedback Amplifiers & Oscillators: Feedback concept, negative & positive feedback, voltage/ current, series/shunt feedback, Berkhausen criterion, Colpitts, Hartley's, Phase shift, Wein bridge and crystal oscillators.

Module -3:

1. Operational Amplifier: Ideal OPAMP, Differential Amplifier, Constant current source (current mirror etc.), level shifter, CMRR, Open & Closed loop circuits, importance of feedback loop (positive &negative), inverting &noninverting amplifiers, voltage follower/buffer circuit.
2. Applications of Operational Amplifiers: adder, integrator & differentiator, comparator, Schmitt Trigger. Instrumentation Amplifier, Log & Anti-log amplifiers, Trans-conductance multiplier, Precision Rectifier, voltage to current and current to voltage converter, free running oscillator.

Module -4:

Multivibrator – Monostable, Bistable, A stable multivibrators; Monostable and a stable operation using 555 timer.

Text / Reference Books:

1. Microelectronic Circuit- Analysis & Design, Rashid, Cenage Learning.
2. Electronic Circuits: Discrete & Integrated, 3rd Edition, Schilling &Belove, McGraw Hill Company.
3. Electronic principles, 6th Edition, Malvino, McGraw Hill Company.
4. Operational Amplifier & Linear IC's, Bell, Oxford University Press.
5. 2000 Solved Problems in Electronics, Jimmie J. Cathey, McGraw Hill Inc.
6. Electronic Devices -System & Application, Robert Diffenderfer, Cengage Learning.
7. Op- Amps & Linear Integrated Circuits, Ravi Raj Dudeja& Mohan Dudeja, Umesh Publication

Data Structure & Algorithms
Code: PCC-CS301
Credit: 3

Module 1: Linear Data Structure:

Introduction: Why we need data structure? Concepts of data structures:

a) Data and data structure
b) Abstract Data Type and Data Type. Applications Algorithms and programs, basic idea of pseudo-code.

Algorithm efficiency and analysis, time and space analysis of algorithms – order notations.

Array: Different representations – row major, column major. Sparse matrix - its implementation and usage. Array representation of polynomials.

Linked List: Singly linked list, circular linked list, doubly linked list, linked list representation of polynomial and applications.

Stack and Queue: Stack and its implementations (using array, using linked list), applications.

Queue, circular queue, dequeue. Implementation of queue- both linear and circular (using array, using linked list), applications.

Recursion: Principles of recursion – use of stack, differences between recursion and iteration, tail recursion. Applications - The Tower of Hanoi.

Module 2: Nonlinear Data structures:

Trees: Basic terminologies, tree representation (using array, using linked list).

Binary trees - binary tree traversal (pre-, in-, post- order), recursive and non-recursive traversal algorithms of binary tree, threaded binary tree (left, right, full), and expression tree.

Binary search tree- operations (creation, insertion, deletion, searching).

Height balanced binary tree – AVL tree (insertion, deletion with examples only). B- Trees – operations (insertion, deletion with examples only).B+ Trees – operations (insertion, deletion with examples only).

Module 3: Graphs:

Graph definitions and concepts (directed/undirected graph, weighted/un-weighted edges, sub-graph, degree, cut vertex/ articulation point, pendant node, clique, complete graph, connected components – strongly connected component, weakly connected component, path, shortest path, and isomorphism). Graph representations/storage implementations – adjacency matrix, adjacency list, adjacency multi- list. Graph traversal and connectivity – Depth-first search (DFS), Breadth-first search (BFS) – concepts of edges used in DFS and BFS (tree-edge, back-edge, cross-edge, forward-edge), applications. Minimal spanning tree Prim's algorithm (basic idea of greedy methods).

Module 4: Searching and Sorting:

a) **Sorting Algorithms:** Bubble sort and its optimizations, insertion sort, shell sort, selection sort, merge sort, quick sort, heap sort (concept of max heap, application – priority queue), radix sort.
b) **Searching:** Sequential search, binary search, interpolation search.
c) **Hashing:** Hashing functions, collision resolution techniques.

Text / Reference Books:

1. "Data Structures and Program Design In C", 2/E by Robert L. Kruse, Bruce P. Leung.
2. "Fundamentals of Data Structures of C" by Ellis Horowitz, SartajSahni, Susan Anderson-freed.
3. "Data Structures in C" by Aaron M. Tenenbaum.
4. **"**Data Structures" by S. Lipschutz.
5. "Data Structures Using C" by ReemaThareja.
6. "Data Structure Using C", 2/e by A.K. Rath, A. K. Jagadev.
7. **"**Introduction to Algorithms" by Thomas H. Cormen, Charles E. Leiserson, Ronald L. Rivest, Clifford Stein.

Object Oriented Programming using JAVA
Code: PCC-CS302
Credit: 2

Module-1:Introduction to Object-Oriented Thinking
Difference between OOP and other conventional programming – advantages and disadvantages; Class, object, message passing,Encapsulation,Inheritance,Polymorphism, Software Design, Software Development Life Cycle

Module-2:Object-Oriented Programming Constructs
Class, Object,Relationships among classes- association, dependency (use, call), aggregation, grouping, generalisation, Relationships among objects - instantiation, links, Meta-class Modelling with UML Class and Sequence Diagrams

Module-3:Designing for Reuse
Good design principles e.g. Single Responsibility Principle (SRP). Don't Repeat Yourself (DRY) Principle; Interfaces and abstract classes; Loose coupling; Inheritance versus Delegation.

Module-4:Basic concepts of Java programming
Advantages of Java, byte-code & JVM, data types, access specifiers, operators, control statements & loops, for-each loop, array, creation of class, object, constructor, object class, finalize and garbage collection, use of method overloading, this keyword, use of objects as parameter & methods returning objects, call by value & call by reference, variable length arguments, static block, variables & methods, nested & inner classes.

Module-5:String Classes
String class, concept of string pool, concept of mutable and immutable string, basic methods of String class, StringBuffer class, basic methods of StringBuffer class, Introduction to StringBuilder class, basic methods of StringBuilder class, comparisons.

Module-6:
Basic of I/O operations.
Command line argument, basic of I/O, different types of streams, basic stream classes, introduction to BufferedReader class, basic file handling, introduction to Scanner class.
Reusability properties.

Super class & subclasses including multilevel hierarchy, process of constructor calling in inheritance, use of super and final keywords comparison between super and this, dynamic method dispatch, method hiding, object type casting, use of abstract classes & methods, interfaces.

Package.

Introduction to package concept, Advantage of using package concept, basic inbuilt packages, package creation, different ways of importing packages, member access for packages.

Module-7:

Exception handling.

Exception handling basics, different types of exception classes, use of try & catch with throw, throws & finally, try with resources, creation of user defined exception classes.

Threading:

Introduction to process, scheduling, context switching, difference between process and thread, basics of multithreading, main thread, thread life cycle, creation of multiple threads, thread priorities, thread synchronization, inter-thread communication, deadlocks for threads, suspending & resuming threads.

Swing.

Advanced Topics: Basic concepts of AWT library, Creation of GUI using Swing library, Event Driven Programming (implementing ActionListener to multiple buttons, MouseListener, KeyListener interfaces), Painting (drawing objects) using AWT.

Generic class and Collection framework

. Introduction to generic class, advantage of generic class user defined generic class & method, introduction to collection framework, advantages, different classes, iterator.

Text / Reference Books:

1. Rambaugh, James Michael, Blaha – "Object Oriented Modelling and Design" – Prentice Hall,
India
2. Ali Bahrami – "Object Oriented System Development" – Mc Graw Hill
3. Patrick Naughton, Herbert Schildt – "The complete reference-Java2" – TMH
4. R.K Das – "Core Java For Beginners" – VIKAS PUBLISHING
5. Deitel and Deitel – "Java How to Program" – 6th Ed. – Pearson
6. Ivor Horton's Beginning Java 2 SDK – Wrox
7. E. Balagurusamy – " Programming With Java: A Primer" – 3rd Ed. – TMH

Digital Electronics

Code: ESC302

Credit: 3

Module 1:

Binary Number System & Boolean Algebra (recapitulation) BCD, ASCII, EBCDIC, Gray codes and their conversions, Signed binary number representation with 1's and 2's complement methods Binary arithmetic, Venn diagram, Boolean algebra (recapitulation) Representation in SOP and POS forms

Minimization of logic expressions by KMAP, Quine-McCluskey Minimization Technique (Tabular Method) Binary Number System & Boolean Algebra (recapitulation) BCD,

ASCII, EBCDIC, Gray codes and their conversions, Signed binary number representation with 1's and 2's complement methods Binary arithmetic, Venn diagram, Boolean algebra (recapitulation) Representation in SOP and POS forms

Minimization of logic expressions by KMAP, Quine-McCluskey Minimization Technique (Tabular Method)

Module 2:

Combinational circuits - Adder and Subtractor circuits (half & full adder &subtractor) Encoder, Decoder, Comparator, Multiplexer, De-Multiplexer and Parity Generator

Module 3:

Sequential Circuits - Basic Flip-flop & Latch

Flip-flops -SR, JK, D, T and JK Master-slave Flip Flops Registers (SISO, SIPO, PIPO, PISO)

Ring counter, Johnson counter, Basic concept of Synchronous and Asynchronous counters (detail design of circuits excluded) Design of Mod N Counter

Module 4:

A/D and D/A conversion techniques – Basic concepts (D/A: R-2-R only A/D: successive approximation

Logic families- TTL, ECL, MOS and CMOS - basic concepts.

Text / Reference Books:

1. Digital Logic Design by Morris Mano - PHI
2. Digital Electronics by S. Salivahanan,S.Arivazhagan-OXFORD
3. Digital Electronics by P.Raja - Scitech Publications
4. Digital Fundamentals by Floyed& Jain -Pearson.
5. Microelectronics Engineering by Sedra& Smith-Oxford.
6. Principles of Electronic Devices & circuits by B L Thereja&Sedha, S Chand Digital Electronics, Kharate –Oxford

Mathematics-III
Code: BSC301
Credit: 2

Module 1

Random variable, Discrete random variables, Probability Mass Function, Distribution Function, Binomial, Poisson, Binomial approximation to the Poisson distribution,

Continuous random variables and their properties, distribution functions and densities, Uniform, Normal, Exponential and Gamma densities.

Expectation, Moments of random variables, Transformation of Random variables, Chebyshev's Inequality.

Module2

a) Bivariate Probability Distributions and their properties (discrete & continuous), marginal distribution, distribution of sums and quotients, conditional densities & independence, related problems.
b) Concept of Regression, Correlation Coefficient, Regression Lines, Properties of Regression coefficients, Principle of Least Squares, Method of fitting a straight line & a

parabola to a given set of observations, related Problems.

Module3

a) Sampling Theory: Random sampling (SRSWR & SRSWOR), parameter, statistic and its sampling distribution, Standard error of statistic, Sampling distribution of sample mean& variance in random sampling from a normal distribution (statement only), related problems.
b) Statistical Inference: Estimation of parameters, Unbiased& Consistent estimators, Point &Interval estimations, Maximum likelihood estimation of parameters (Binomial, Poisson, & Normal),Confidence intervals, related problems.
c) Testing of Hypotheses: Its definition-Null& Alternative Hypothesis, Critical Region, Level of significance, Type I and Type II errors, Best Critical Region, related problems, Large sample tests: Large sample test for single mean, difference of means, single proportion, difference of proportions, standard deviations, Small sample tests: Small sample test for single mean, difference of means, Test for ratio of variances, Chi-square test for goodness of fit &independence of attributes.

Text / Reference Books:

1. S. Ross, A First Course in Probability, 6th Ed., Pearson Education India, 2002.
2. Miller &Freund's, Probability and Statistics for Engineers, Pearson Education.
3. Spiegel M R., Schiller J.J. and Srinivasan R.A.: Probability and Statistics (Schaum'sOutlineSeries), TMH
4. Gupta &Kapoor, Fundamentals of Mathematical Statistics, Sultan Chand & Sons 55 5. John E. Freund, Ronald E. Walpole, Mathematical Statistics, Prentice Hall.

Universal Human Values – III (ESP – III)

Code: HSMC302

Credit: 2

Module 1: Laws of Society:

Union Executive- President, Vice President, PM and Council of Ministers, Attorney General

Module 2: Our Freedom Struggle:

Arrival of the Europeans- Portuguese, Dutch, English, French; Land Revenue System, Economic Exploitation of British Rule, Socio-religious Reforms Movement.

Module 3: Know Our Country:

Physical Geography of India- Peninsular Plateau, Northern Great Plains, Coastal Plains, Soil of India.

Module 4: RBI and Banking:

Banking System of India with reference to RBI, Capital Market

Module 5: India and World:

Monthly Current Affairs Magazine

Module 6: Universal Human Values:

Understanding Human Beings as the co-existence of the self and the body, Program to ensure self regulation and health, Understanding harmony in the nature.

Text Books: None

Data Structure & Algorithms Laboratory
Code: PCC-CS391
Credit: 2

Module-1: Implementation of array operations: Stacks and Queues: adding, deleting elements Circular
Queue: Adding & deleting elements Merging Problem: Evaluation of expressions operations on multiple stacks & queues.
Module-2: Implementation of linked lists: inserting, deleting, and inverting a linked list.
Module-3: Implementation of stacks & queues using linked lists, Polynomial addition
Module-4: Polynomial multiplication, Sparse Matrices: Multiplication, addition.
Module-5: Recursive and Non recursive traversal of Trees, Threaded binary tree, binary search tree.
Module-6: Application of sorting and searching algorithms.
Module-7: Hash tables implementation: searching, inserting and deleting, searching & sorting techniques.

Text / Reference Books:

1. "Data Structures and Program Design In C", 2/E by Robert L. Kruse, Bruce P. Leung.
2. "Fundamentals of Data Structures of C" by Ellis Horowitz, SartajSahni, Susan Anderson-freed.
3. "Data Structures in C" by Aaron M. Tenenbaum.
4. **"**Data Structures" by S. Lipschutz.
5. "Data Structures Using C" by ReemaThareja.
6. "Data Structure Using C", 2/e by A.K. Rath, A. K. Jagadev.
7. **"**Introduction to Algorithms" by Thomas H. Cormen, Charles E. Leiserson, Ronald L. Rivest, Clifford Stein.

Digital Electronics Laboratory
Code: ESC392
Credit: 2

Module 1: Familiarity with basic gates ICs and Realization of NOT, AND, OR and XOR operations by using universal gates (both NAND and NOR). - Design some basic logic circuits using basic gates ICs.
Module 2: Design a circuit to indicate 4 bits odd and even numbers.
Module 3: Realization of a circuit to display prime and non-prime numbers (4 bit).
Module 4: Implementation of Half Adder. Implementation of Full Adder. Carryout expression is implemented by basic gates.
Module 5: Implementation of Full Adder by using 2 half Adders and an OR gate.
Module 6: Implementation of Half Subtractor.
Module 7: Implementation of Full Subtractor. Borrow out expression is implemented by basic gates.
Module 8: Implementation of Full Subtractor using 2 Half Subtractors and an OR gate.

Module 9: Realization of a circuit to convert BCD to Excess -3 codes.
Module 10: Realization of a circuit to convert Excess -3 codes to BCD.
Module 11: Design a circuit to convert 4 bit Binary to 4 bit Gray code.
Module 12: Design a circuit to convert 4 bit Gray code to 4 bit Binary.
Module 13: Realization of an Even Parity Generator and Checker circuit.
Module 14: Implementation of 2 bit comparator circuit.
Module 15: Realization of the internal architecture of 4:1 Multiplexer and 1:4 De-multiplexer.
Module 16: Implementation of Full Adder using MUX IC 4539B.
Module 17: Implementation of Full Subtractor using MUX IC 4539B.
Module 18: Realization of 4:2 Priority Encoder along with output indicator (basic gates).
Module 19: Realization of the internal architecture of 3:8 Decoder using basic gates.
Module 20: Realization of octal to binary encoder using basic gates.
Module 21: Implement Full Adder using IC 4008.
Module 22: Implement Full Subtractor using IC 4008.
Module 23: Truth table verification of SR flip-flop (using NAND gates only).
Module 24: Truth table verification of D flip-flop (using NAND gates only).
Module 25: Truth table verification of JK flip-flop (using NAND gates only).
Module 26: Truth table verification of T flip-flop (using NAND gates only).
Module 27: Design a Master slave flip-flop.
Module 28: Design 4-bit synchronous up counter.
Module 29: Design 4-bit synchronous down counter.
Module 30: Design 4-bit asynchronous up counter.
Module 31: Design 4-bit asynchronous down counter.
Module 32: Design a 3-bit synchronous up/down' counter using JK flip-flop with external mode signal
M. If M=1, counter counts up and with M=0, counter counts down.
Module 33: Design and implement MOD-4 Ring counter.
Module 34: Design a Johnshon counter.
Module 35: Design a Decade counter.
Module36: Design an unit distance code counter.
Module 37: Realization of Serial-In-Parallel Out Shift register.
Module 38: Realization of Parallel-In-Parallel Out Shift register.
Module 39: Realization of Parallel-In-Serial Out Shift register.
Module 40: Realization of Bidirectional shift register (All using D flip-flops).

Text / Reference Books:

1. Digital Logic Design by Morris Mano – PHI
2. Digital Electronics by S. Salivahanan,S.Arivazhagan-OXFORD
3. Digital Electronics by P.Raja - Scitech Publications
4. Digital Fundamentals by Floyed& Jain -Pearson.
5. Microelectronics Engineering bySedra& Smith-Oxford.
6. Principles of Electronic Devices & circuits by B L Thereja&Sedha, S Chand Digital Electronics

,Kharate –Oxford

IT Workshop Practical (MATLAB / JAVA / Android)
Code: PCC-CS392
Credit: 2

Module 1: Programming in MATLAB

Introduction - Why MATLAB ?History, its strengths, Competitors, Starting MATLAB, Using MATLAB as a calculator, Quitting MATLAB.

Basics - Familiar with MATLAB windows, Basic Operations, MATLAB-Data types, Rules about variable names, Predefined variables.

Programming Concepts- Vector, Matrix, Array Addressing, Built-in functions, Mathematical Operations, Dealing with strings (Array of characters), Script file, Input commands, Output commands, Structure of function file, Inline functions, Feval command, Comparison between script file and function file.

Conditional Statements and Loop - Relational and Logical Operators, If-else statements, Switch-case statements, For loop, While loop, Special commands (Break and continue), Import data from large database, Export data to own file or database.

2D and 3D Plotting - In-built functions for plotting, Multiple plotting with special graphics, Curve fitting, Interpolation, Basic fitting interface, use of mesh grid function, Mesh plot, Surface plot, Plots with special graphics.

Module 2: Programming in JAVA

1. Assignments on class, constructor, overloading, inheritance, overriding
2. Assignments on wrapper class, arrays
3. Assignments on developing interfaces- multiple inheritance, extending interfaces
4. Assignments on creating and accessing packages
5. Assignments on multithreaded programming
6. Assignments on applet programming

Note: Use Java for programming
Preferably download "**java_ee_sdk-6u4-jdk7-windows.exe**" from
http://www.oracle.com/technetwork/java/javaee/downloads/java-ee-sdk-6u3-jdk-7u1-downloads-523391.html

Module 3: Web Technology & Multimedia

HTML - History of HTML, HTML Tags, Attributes and Elements, HTML Basic Tags, HTML Formatting Tags, HTML Color Coding, HTML images, hyper link, form, table.

CSS - CSS Syntax, External Style Sheet using <link>, single Style Sheet, Multiple Style Sheets, ID Selectors and Class Selectors.

Scripting Language - Java Script, Angular JS.

PHP - Static webpage designing.

Multimedia - Image - Formats, Image Color Scheme, Image Enhancement.

Video - Analogue and Digital Video, Recording Formats and Standards (JPEG, MPEG, H.261) Transmission of Video Signals and Video Capture.

Module 4: Android App Development

Introduction - What is Android. First Android app, How to run and debug applications. (Emulator vs. Real device), Android project structure, XML files, Enhancing the first app.

Basics - Activity, Menus, Intents, Context.

Variables and Operators - Variables, Arithmetic operators, Relational operators, Logical operators.

Object Oriented Programming - Collections in Java, Static keyword, Interfaces and Abstract classes, Exceptions.

Android capabilities -intelliJIDEA / Android Studio, Permissions, Images, Layout, Working with files, Working with the network, Debugging Android apps, Providing feedback to the user (Vibration, Sounds, Flash), Raw camera usage, Touch gestures, Location, Status bar notifications, Localization, Services.

Text / Reference Books:

1. MATLAB Programming for Engineers, 6E-Author(s): Stephen J. Chapman, ISBN: 9789353502874, Cengage Learning India Private Limited, Noida
2. Mastering MATLAB 7,-Author(s): Duane C. Hanselman, Bruce Littlefield, ISBN: 9788131707432, Pearson Education India Pvt.
3. Programming with Java | 6th Edition by E Balagurusamy (Mc.Graw Hill)
4. HTML, CSS, and JavaScript All in One, Sams Teach Yourself, 3/e by Julie C. Meloni (Pearson)
5. HTML 5 Black Book, Covers CSS 3, JavaScript, XML, XHTML, AJAX, PHP and jQuery (dreamtech)
6. Head First Android Development: A Brain Friendly Guide by Dawn Griffiths, David Griffiths. (O'Reilly)

Humanities – I (Technical Report Writing using Latex)

Code: HSMC381

Credit: 3

Module 1: Basics of Technical Report Writing

1. Defining the term 'technical report' and likewise emphasizing the importance of drafting technical reports in engineering fields.
2. Locating the 'problem statement' as a pre-requisite criterion for drafting a technical report.
3. Drafting the report per accordance to the required format of the multifarious technical report style-article, journal, research publications, book formats etc.

Module 2: Structural Layout of a Technical Report

1. The technical report is divided and subdivided into chapters, parts and sections strictly adhering to the norms of a formal technical report.
2. Elaborating on the structural divisions/ sub divisions of the technical report, thereby stating the functional importance of each of the parts w.r.t the drafting of a technical report.

Module 3: Basic Concerns of textformatting in a Technical Report

1. Sectioning chapters per requirement of the technical document.
2. Using of graphic details for data representation.
3. List of references/ end notes/foot-notes
4. Specialcharacters
5. Bibliography andcitations

Module 4: LaTeX installation for typesetting a Technical Report.

1. Introduction toLaTeX
2. The benefits of using LaTeX for typesetting a technical document.
3. Required Components of a LaTeXDocument
4. Typing LaTeXCommands

Module 5:Drafting of Technical Reports using LaTeX as a technical tool.

1. Drafting of technical reports using LaTeX as a technical tool.
2. Group presentation of the technical reports through beamerclass

Text Books: None

Universal Human Values – III (SDP – III)

Code: HSMC382
Credit: 1

Quantitative Aptitude. Verbal & Non-Verbal Reasoning.