B.Sc.(INFORMATION TECHNOLOGY)

PROGRAM OUTCOMES

PO- 1: After completing three years Degree Course – Bachelor of Science (Information Technology) (B.Sc.-IT) program, Learners will develop foundational knowledge of computer programming.

PO- 2: Learners will acquire practical knowledge , training in professional skills and ethics to build competencies in the area of information technology.

PO- 3: Learners will develop their personalities along with commercial , communication , research , analytical and managerial skills in practical and theoretical concepts in Information Technology.

PO- 4: Learners will enhance IT skills and be able to relate to global challenges and be exposed to newer avenues in Information Technology.

PO- 5: Learners will be trained in leadership skills and social responsibilities with sensitivity towards environment and sustainability.

Course Name: IMPERATIVE PROGRAMMING
SEM: I
Course Code: SEM 1 : BITS101

No	Course Outcomes	PO Mapping
CO 1 (Remember)	The Learner will be able to identify various programming language and recognize their use to develop various software and hardware applications.	PO-1, PO-2, PO-4
CO 2 (Understanding)	The Learner will be able to demonstrate the basic knowledge of programming using arithmetic and conditional operators in program. And also associate it with built in functions.	PO-1, PO-2, PO-4
CO 3 (Applying)	The Learner will be able to apply and interpret the condition checking, decision making and looping by using various control structures in C programming.	PO-1, PO-2, PO-4
CO 4 (Analysing)	The Learner will be able to analyse the concept of an array and categorize different macros by applying them in program.	PO-1, PO-2, PO-4
CO 5 (Evaluating)	The Learner will be able to summarize with the knowledge of pointers, file handling in c programming.	PO-1, PO-2, PO-4, PO-3
CO 6 (Creating)	The Learner will be able to design and write a C program using various concept of C programming learned during the course.	PO-1, PO-2, PO-4, PO-5

Course Name: DIGITAL ELECTRONICS

SEM: I
Course Code: SEM 1 : BITS102

No	Course Outcomes	PO Mapping
CO1 (Remember)	The learner will be able to identify various number systems and its arithmetic operations.	PO-1, PO-3
CO 2 (Understanding)	The learner will be able to summarize the basics of digital logic and its application in digital electronics circuits.	PO-1, PO-3
CO 3 (Applying)	The learner will be able to apply the concept of counters, shift registers and digital logic families.	PO-1, PO-3
CO 4 (Analysing)	The learner will be able to analyze various combinational logic circuits and sequential circuits.	PO-1, PO-3, PO-4
CO 5 (Evaluating)	The learner will be able to summarize various logic circuits.	PO-1, PO-3, PO-2
CO 6 (Creating)	The learner will be able to design various combinational logic circuits and sequential circuits.	PO-1, PO-3, PO-5

Course Name: OPERATING SYSTEMS
SEM: I
Course Code: SEM 1 : BITS103

No	Course Outcomes	PO Mapping
CO 1 (Remember)	The learner will be able to describe the structure of OS and basic architectural components involved in OS design.	PO-1, PO-2, PO-3, PO-4
CO 2 (Understanding)	The learner will be able to explain the mechanisms used by operating systems to manage processes and threads, as well as diverse memory management techniques.	PO-1, PO-2, PO-3, PO-4
CO 3 (Applying)	The learner will be able to demonstrate the concepts of file handling and I/O operations.	PO-1, PO-2, PO-3, PO-4
CO 4 (Analysing)	The learner will be able to analyse deadlocks, its causes, and practical solutions, as well as virtualization and cloud concepts.	PO-3, PO-4, PO-5
CO 5 (Evaluating)	The learner will be able to compare and differentiate between the concepts of multiprocessor, multicomputer & distributed system and would understand various concepts of security.	PO-2, PO-3, PO-4
CO 6 (Creating)	The learner will be able to rewrite various scheduling algorithm for scheduling processes & threads.	PO-1, PO-2, PO-3, PO-4

Course Name: DISCRETE MATHEMATICS

SEM: I
Course Code: SEM 1 : BITS104

No	Course Outcomes	PO Mapping
CO 1 (Remember)	The learner will be able to identify the basic mathematical structure required for logical reasoning	PO-1, PO-3, PO-4
CO 2 (Understanding)	The learner will be able to interpret concepts of relations, functions, graphs and trees.	PO-2, PO-3, PO-4
CO 3 (Applying)	The learner will be able to implement concepts of divisibility, congruence, GCD etc.	PO-1, PO-3, PO-4
CO 4 (Analyzing)	The learner will be able to analyze mathematical arguments, sequences, graphs, trees etc.	PO-3, PO-4
CO 5 (Evaluating)	The learner will be able to evaluate functions, sequences, probabilities etc.	PO-3, PO-4
CO 6 (Creating)	The learner will be able to develop applications in areas of data structures, networking, and analysis of algorithms.	PO-3, PO-4

Course Name: BUSINESS COMMUNICATION
SEM: I
Course Code: SEM 1 : BITS105

No	Course Outcomes	PO Mapping
CO 1 (Remember)	The learner will be able to identify and use appropriate channels, modes and media of communication.	PO-1, PO-2, PO-3, PO-4
CO 2 (Understanding)	The learner will be able to interpret and summarize texts and content.	PO-2, PO-3
CO 3 (Applying)	The learner will be able to execute effective oral and written communication, individually and in groups.	PO-2, PO-3
CO 4 (Analyzing)	The learner will be able to integrate reading, writing, speaking and listening skills to meet professional, personal and evolving global requirements.	PO-1, PO-2, PO-3, PO-4, PO-5
CO 5 (Evaluating)	The learner will be able to discriminate and assess ethical and professional codes.	PO-1, PO-2, PO-4, PO-5
CO 6 (Creating)	The learner will be able to plan, formulate, create and design resources for communication.	PO-1, PO-2, PO-3, PO-4

Course Name: OBJECT ORIENTED PROGRAMMING
SEM: II
Course Code: SEM 2 : BITS201

No	Course Outcomes	PO Mapping
CO 1 (Remember)	The learner will be able to define basic concepts of object-oriented programming.	PO-1, PO-2, PO-4
CO 2 (Understanding)	The learner will be able to explain the concepts of classes, objects, constructors & destruction with their uses and distinguish between object-oriented & procedural-oriented programming.	PO-1, PO-2
CO 3 (Applying)	The learner will be able to demonstrate the concepts of data conversions, polymorphism & virtual functions.	PO-1, PO-2
CO 4 (Analyzing)	The learner will be able to analyse program development using inheritance and handling of exceptions in the program.	PO-1, PO-2, PO-5
CO 5 (Evaluating)	The learner will be able to summarize concepts of templates, working with files & debugging.	PO-1, PO-2
CO 6 (Creating)	The learner will be able to write programs using object-oriented methodology.	PO-1, PO-2, PO-3, PO-4

Course Name: MICROPROCESSOR ARCHITECTURE
SEM: II
Course Code: SEM 2 : BITS202

No	Course Outcomes	PO Mapping
CO 1(Remember)	The learner will be able to describe the fundamentals of microprocessor architecture.	PO-1, PO-3
CO 2 (Understanding)	The learner will be able to understand summarize the fundamentals of assembly language programming using 8085 microprocessor.	PO-1, PO-3
CO 3 (Applying)	The learner will be able to apply the various programming techniques in assembly programming.	PO-1, PO-3, PO-4
CO 4 (Analyzing)	The learner will be able to analyse the code conversions and arithmetic operations.	PO-1, PO-3
CO 5 (Evaluating)	The learner will be able to summarize different processor trends.	PO-1, PO-3, PO-2
CO 6 (Creating)	The learner will be able to design basic 8085 microprocessor programs.	PO-1, PO-3, PO-5

Course Name: WEB PROGRAMMING

SEM: II
Course Code: SEM 2 : BITS203

No	Course Outcomes	PO Mapping
CO 1 (Remember)	The Learner will be able to identify and discover the web programming using basic HTML.	PO-1, PO-2, PO-4
CO 2 (Understanding)	The Learner will be able to demonstrate and interpret the web page using various HTML tags and validate the data using JavaScript.	PO-1, PO-2, PO-4
CO 3 (Applying)	The Learner will be able to illustrate and design the web page by applying event handling concept.	PO-1, PO-2, PO-4
CO 4 (Analysing)	The Learner will be able to analyse and differentiate between the server-side scripting and client-side scripting using PHP.	PO-1, PO-2, PO-4
CO 5 (Evaluating)	The Learner will be able to evaluate database programming using MySQL.	PO-1, PO-2, PO-3, PO-4
CO 6 (Creating)	The Learner will be able to design and create the web pages using HTML, PHP and MYSQL	PO-1, PO-2, PO-3, PO-4, PO-5

Course Name: NUMERICAL AND STATISTICAL METHODS
SEM: II
Course Code: SEM 2 : BITS204

No	Course Outcomes	PO Mapping
CO 1 (Remember)	The learner will be able to identify basic elements of numerical methods and errors.	PO-2, PO-3, PO-4
CO 2 (Understanding)	The learner will be able to differentiate various numerical and statistical methods.	PO-1, PO-3, PO-4
CO 3 (Applying)	The learner will be able to apply numerical methods to obtain approximate solutions to mathematical problems.	PO-3, PO-4
CO 4 (Analyzing)	The learner will be able to analyse the problem and fit into a correct probability distribution to get probabilities.	PO-3, PO-4
CO 5 (Evaluating)	The learner will be able to evaluate the accuracy of common numerical methods.	PO-3, PO-4
CO 6 (Creating)	The learner will be able to formulate Linear Programming Problems to get optimum solution.	PO-3, PO-4

Course Name: GREEN COMPUTING
SEM: II
Course Code: SEM 2 : BITS205

No	Course Outcomes	PO Mapping
CO 1(Remember)	Learners will be able to identify adverse impact of lifestyle on environment.	PO-1, PO-4, PO-5
CO 2 (Understanding)	Learners will be able to interpret initiatives taken by various countries to reduce and recycle e-waste.	PO-1, PO-4, PO-5
CO 3 (Applying)	Learners will be able to relate the impact of e-waste on environment and human health.	PO-1, PO-2, PO-4, PO-5
CO 4 (Analyzing)	Learners will be able to select various methods to reduce power usage, save paper etc.	PO-1, PO-2, PO-4, PO-5
CO 5 (Evaluating)	Learners will be able to evaluate the green methods implemented in business.	PO-1, PO-2, PO-5
CO 6 (Creating)	Learners will be able to plan and develop ideas for e-waste management.	PO-1, PO-2, PO-3, PO-5