



*Mahatma Phule Shikshan Sanstha's*

**Karmaveer Bhaurao Patil College,  
Department of Information Technology**

**B.Sc. Information Technology (Entire)**

**Course Outcomes**

**B.Sc.(I.T.) Entire Part-I (Sem I)**

Course Title- Basics of C Programming

**COURSE OUTCOMES**

After completing this course, student will be able to

1. Demonstrate a good understanding of basic database structure. Illustrate the flowchart and design an algorithm for given problem
2. Acquire the information about data types.
3. Students will be able to develop logics which will help to create programs and applications.
4. Will help to switch for any programming language for development.

**B.Sc. (I.T.) Entire Part-I (Sem I)**

Course Title- Web Development Using HTML

**COURSE OUTCOMES**

After completing this course, student will be able to

1. Understand basic concept of HTML.
2. Learn how to use HTML tags.
3. Understand how to design Webpages using HTML.
4. Understand use of frames to design.

## **B.Sc. (I.T.) Entire Part-I (Sem I)**

Course Title- Practical-I Based on Subject I DSC I and Subject I  
DSC II

### **COURSE OUTCOMES**

After completing this course, student will be able to

1. Develop applications.
2. Debug the program
3. Design static web pages using Hyper Text Markup Language (HTML).
4. Enhance the look of web pages by implementing CSS.
5. Collect information from the user with HTML Forms.
6. Design website using HTML & FRAME .

## **B.Sc. (I.T.) Entire Part-I (Sem I)**

Course Title- Foundation of Mathematics

### **COURSE OUTCOMES**

After completing this course, student will be able to

1. Basic knowledge of set theory, functions and relations concepts, matrix needed for designing and solving problems.
2. Construct simple mathematical proofs and possess the ability to verify them.
3. Basic knowledge of application of matrices.
4. Basic knowledge of Mean value theorems.

## **B.Sc. (I.T.) Entire Part-I (Sem I)**

Course Title- Basic Algebra

### **COURSE OUTCOMES**

After completing this course, student will be able to

- CO 1. apply fundamental concepts in Number theory to solve problems on congruence.
- CO 2. solve problems based on Fermat's theorem and residue classes.
- CO 3. use fundamental concepts in Mathematics like sets, relations and functions.
- CO 4. learn basic concepts like poset, lattice, Boolean algebra and apply them to find CNF and DN

**B.Sc. (I.T.) Entire Part-I (Sem I)**

**Course Title- Basic Electronics**

**COURSE OUTCOMES**

After completing this course, student will be able to

- CO1: To understand and distinguish the electronics devices.
- CO2: To understand the semiconductor applications and solve the circuits.
- CO3: To understand the logic family.
- CO4: To understand the TTL and CMOS concept.

**B.Sc. (I.T.) Entire Part-I (Sem I)**

**Course Title- Fundamentals of Digital Computing**

**COURSE OUTCOMES**

After completing this course, student will be able to

- CO1 To understand the concept of Number Systems and codes
- CO2 To simplify Boolean algebraic assignments.
- CO3 To understand and compare the functionalities, properties and applicability of Logic Gates
- CO4 To understand and design the arithmetic circuits

**B.Sc. (I.T.) Entire Part-I (Sem II)**

**Course Title- Advanced C Programming**

**COURSE OUTCOMES**

After completing this course, student will be able to

1. Understand a functional hierarchical code organization.
2. Ability to work with different storage class.
3. To impart knowledge in creating and using pointer
4. Understand to work with file handling concept.

**B.Sc. (I.T.) Entire Part-I (Sem II)**

**Course Title- Web Development Using Cascaded Style Sheets**

**COURSE OUTCOMES**

After completing this course, student will be able to

1. Understand basic concept of HTML.

2. Learn how to use HTML tags.
3. Understand how to design Webpages using HTML and CSS.
4. Understand use of frames to design.

### **B.Sc. (I.T.) Entire Part-I (Sem II)**

Course Title- : Practical-I Based on Subject I DSC III and Subject I  
DSC IV

#### **COURSE OUTCOMES**

After completing this course, student will be able to

1. Develop applications with nested structure.
2. Understand concept of passing arguments.
3. Develop applications with file handling.
4. Understand pointer arithmetic operations.

### **B.Sc. (I.T.) Entire Part-I (Sem II)**

Course Title- Graph Theory

#### **COURSE OUTCOMES**

After completing this course, student will be able to

- CO 1. achieve command of the fundamental definitions and concepts of graph theory.
- CO 2. model problems using graphs and solve these problems algorithmically.
- CO 3. illustrate fundamentals of spanning tree, circuits and cut-sets.
- CO 4. apply this knowledge in (especially) computer science applications.

### **B.Sc. (I.T.) Entire Part-I (Sem II)**

Course Title- Microprocessor Architecture

#### **COURSE OUTCOMES**

After completing this course, student will be able to

- CO1 To study microprocessor assembly language
- CO2 Write assembly language program for microprocessors
- CO3 Draw and describe architecture of 8085 microcontroller
- CO4 To study memory management in microprocessors.

## **B.Sc. (I.T.) Entire Part-I (Sem II)**

**Course Title- Fundamentals of Digital Design**

### **COURSE OUTCOMES**

After completing this course, student will be able to

- CO1: To analyse different types of digital electronic circuit using various logical tools.
- CO2: To understand the working principle, selection criteria and applications of sequential and combinational circuits.
- CO3: To design and implement digital circuits
- CO4: To understand the concept of memory and memory devices.

## **B.Sc. (IT) (Entire) Part-II (Sem III)**

**Course Title - CPP Programming**

### **COURSE OUTCOMES**

Understand basic concepts of object oriented programming.

1. Able to use various control structures to improve programming logic.
2. Able to use constructor and destructor.
3. Utilize the OOP techniques like operator overloading, inheritance, and polymorphism.

## **B.Sc. (IT) (Entire) Part-II (Sem III)**

**Course Title - DBMS & RDBMS**

### **COURSE OUTCOMES**

After completion of this course students will be able to;

1. Gain knowledge of fundamentals of DBMS, database design and normal forms.
2. Be acquainted with the basics of transaction processing and concurrency control
3. Familiarity with database storage structures and access techniques

## **B.Sc. (IT) (Entire) Part-II (Sem III)**

**Course Title: Practical Based on Subject I Major III & Major IV**

### **COURSE OUTCOMES**

After completion of this course students will be able to;

1. Develop applications with class
2. Develop applications with overloading
3. Develop applications with inheritance

## **B.Sc. (IT) (Entire) Part-II (Sem III)**

**Course Title: Computer Organization**

### **COURSE OUTCOMES**

On completion of the course, the students will be able to

- 1: Understand the designing of Combinational circuits & Sequential circuits,
- 2: Understand the Internal organization of Memory,
- 3: To study and understand the Input & Output devices organization in a computer,
- 4: To study the architecture CPU & internal organization of CPU.

## **B.Sc. (IT) (Entire) Part-II (Sem III)**

**Course Title: Electronic Communication**

### **COURSE OUTCOMES**

On completion of the course, the students will be able to:

- 1 Understand the concept to Electronic communication,
- 2 Understand Different Modulation techniques,
- 3 Understand Different Multiplexing techniques,
- 4 Understand wireless telecommunication systems.

## **B.Sc. (IT) (Entire) Part-II (Sem III)**

**Course Title: Java Scripting**

### **COURSE OUTCOMES**

After completion of this course students will be able to;

1. To design and implement dynamic web page with validation using JavaScript objects
2. To apply different event handling mechanisms.
3. To design front end web page and connect to the back end databases.

## **B.Sc. (IT) (Entire) Part-II (Sem III)**

**Course Title: Python Programming**

### **COURSE OUTCOMES**

After completion of this course students will be able to;

1. Develop and execute simple Python programs.
2. Write simple Python programs using conditionals and loops for solving problems.
3. Decompose a Python program into functions.
4. Represent compound data using Python lists, tuples, dictionaries etc.

## **B.Sc. (IT) (Entire) Part-II (Sem III)**

**Course Title: Formal Communication**

### **COURSE OUTCOMES**

The course will enable students to;

1. Introduce communication techniques
2. Have professional correspondence techniques
3. Enhance writing skills

## **B.Sc. (IT) (Entire) Part-II (Sem III)**

**Course Title: Basics of Yoga**

### **COURSE OUTCOMES**

The course will enable students to;

1. To understand the importance of Yoga
2. To understand various Asans

## **B.Sc. (IT) (Entire) Part-II (Sem IV)**

**Course Title - Data Structure through C++**

### **COURSE OUTCOMES**

After completing this course, student will be able to

1. An understanding the basic data structures.
2. Understanding the basic search and sort algorithms.
3. The appropriation use of a particular data structure and algorithm to solve a problem .
4. Understand advanced algorithms such as quick sort, merge sort.
5. Analyze the concept of data structures through ADT including List, Stack and Queues .

## **B.Sc. (IT) (Entire) Part-II (Sem IV)**

**Course Title - System Analysis Design & UML**

### **COURSE OUTCOMES**

After completion of this course students will be able to;

1. Analyse and specify the requirements of a system.
2. Design system components and environments.
3. Provides a visual representation of an aspect of a system.

**B.Sc. (IT) (Entire) Part-II (Sem IV)**

**Course Title - Practical Based on Subject II Major V & Major VI**

**COURSE OUTCOMES**

After completion of this course students will be able to;

1. Develop applications with searching.
2. Develop applications with sorting.
3. Develop applications with tree.

**B.Sc. (IT) (Entire) Part-II (Sem IV)**

**Course Title - Computer Networking**

**COURSE OUTCOMES**

On completion of the course, the students will be able to:

1. Understand the concept of Networks & Network Models,
2. Understand different Networking Devices & Transmission media,
3. Understand the data linking, data flow control & error detection,
4. Understand Network Layer, Transport Layer, Application Layer,

**B.Sc. (IT) (Entire) Part-II (Sem IV)**

**Course Title - Micro-Controller & Interfacing**

**COURSE OUTCOMES**

On completion of the course, the students will be able to

- 1: Understand the difference between Microprocessor & Micro-controller,
- 2: Learn & Understand the Instruction set of Micro-controller,
- 3: To study different features of Micro-controller,
- 4: To study interfacing of different peripheral devices with Micro-controller,

**B.Sc. (IT) (Entire) Part-II (Sem IV)**

**Course Title - Advanced Python Programming**

**COURSE OUTCOMES**

After completion of this course students will be able to;

1. The Object-oriented programming skills in Python.
2. The skill of to design graphical-user interfaces (GUI) in Python.
3. An ability to write database applications in Python.

**B.Sc. (IT) (Entire) Part-II (Sem IV)**

Course Title - Soft Skills

**COURSE OUTCOMES**

The course will enable students to;

1. To empower the students towards general and technical writing, oral communications
2. To empower listening skills: letter writing, technical report writing, and business communication.

**B.Sc. (IT) (Entire) Part-II (Sem IV)**

Course Title - Environment Studies

**COURSE OUTCOMES**

- 1.To be taken from Environmental Science BoS

**B. Sc (I.T.) Entire Part-III (NEP 2020)**

Course Title - ERP

**COURSE OUTCOMES**

After completing this course, student will be able to

1. Make basic use of Enterprise software, and its role in integrating business functions
2. Analyze the strategic options for ERP identification and adoption.
3. Design the ERP implementation strategies.
4. Create reengineered business processes for successful ERP implementation.
5. Demonstrate a good understanding of basic issues in Enterprise Systems.
6. Explain the scope of common Enterprise Systems (e.g., MM, SCM, CRM, HRM, procurement)
7. Describe the selection, acquisition and implementation of enterprise systems
8. Use one of the popular ERP packages to support business operations and decision-making.
9. Communicate and assess an organization's readiness for enterprise system implementation with a professional approach in written form system.
10. Demonstrate an ability to work independently and in a group.

### **B. Sc (I.T.) Entire Part-III (NEP 2020)**

#### **Course Title- Software Engineering**

##### **COURSE OUTCOMES**

After completing this course, student will be able to

- To understand the process of Software Engineering.
- Conceptualize the Software Development Life Cycle (SDLC) models.
- Familiarize with Software Design & its Strategies.
- Study Software Testing & Maintenance.

### **B. Sc (I.T.) Entire Part-III (NEP 2020)**

#### **Course Title- C# Programming**

##### **COURSE OUTCOMES**

After completing this course, student will be able to

1. This course will cover the practical aspects C#.NET framework.
2. The goal of this course is to introduce the students to the basics of OOPs and windows application program.

## **B. Sc (I.T.) Entire Part-III (NEP 2020)**

### **Course Title- : Core Java**

#### **COURSE OUTCOMES**

After completing this course, student will be able to

1. Object oriented programming concepts using Java.
2. Knowledge of input, its processing and getting suitable output.
3. Understand, design, implement and evaluate classes and applets
4. Understand concept of Multiprogramming and Exception Handling

## **B. Sc (I.T.) Entire Part-III (NEP 2020)**

### **Course Title- : Android Programming**

#### **COURSE OUTCOMES**

After completing this course, student will be able to

1. Understand Android architecture.
2. Understand the UI Components of Android and designing UI Applications.
3. Develop, design and deploy applications on Emulator as well as real device.
4. Developing applications with database connectivity to SQLite (i.e. Saving, Retrieving, Loading data).

## **B. Sc (I.T.) Entire Part-III (NEP 2020)**

### **Course Title- : Machine Learning**

#### **COURSE OUTCOMES**

After completing this course, student will be able to

1. Define a problem to find appropriate solutions in the field of data science and other interdisciplinary areas.
2. Classify and apply machine learning techniques to solve real world problems.
3. Apply various classification algorithms and evaluate their performance.
4. Analyze various techniques of machine learning.
5. Evaluate performance of machine learning models by using various performance evaluation parameters.
6. Construct use case based models by analyzing datasets from various domains.

## **B. Sc (I.T.) Entire Part-III (NEP 2020)**

### **Course Title- : Artificial Intelligence**

#### **COURSE OUTCOMES**

After completing this course, student will be able to

1. Identify problems where artificial intelligence techniques are applicable
2. Apply selected basic AI techniques; judge applicability of more advanced techniques.
3. Participate in the design of systems that act intelligently and learn from experience

## B. Sc (I.T.) Entire Part-III (NEP 2020)

Course Title- : ASP.NET

### COURSE OUTCOMES

After completing this course, student will be able to

1. Understand working of Asp.Net web application
2. Demonstrate Asp.Net server controls.
3. Study database operations using ADO.Net.
4. Understand importance and working of state management.

## B. Sc (I.T.) Entire Part-III (NEP 2020)

Course Title- : Advanced Java

### COURSE OUTCOMES

After completing this course, student will be able to

1. Develop GUI using Java
2. Handle Database using java
3. Develop dynamic web pages using servlet and JSP

## B. Sc (I.T.) Entire Part-III (NEP 2020)

Course Title- : R Programming

### COURSE OUTCOME:

At the end of this course, student will be able to:

1. Understand the fundamental syntax of R through practice exercises.
2. Describe the control statements and functions in R.
3. Analyze a data set in R and represent findings using the appropriate R packages.
4. Use data visualization tools



Head

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