

# **BASICS OF COMPUTERS AND OFFICE AUTOMATION**

## **SEMESTER I**

### **BCA (ALL Groups)**

---

#### **Unit 1**

##### **Short Answer Questions: (5 Marks)**

1. Difference between Binary , octal , Decimal number system
2. Explain analytical engine, Pascaline and Tabulating machine.
3. Explain memory unit in computer system
4. What are computer generations? Why are they important?
5. Explain ALU and its components.
6. Difference between RAM and ROM explain ?

##### **Long Answer Questions: (10 Marks)**

1. What is a Number System? Explain different types of number systems (Binary, Decimal, Octal, Hexadecimal) with suitable examples and conversions.
2. Explain the block diagram of a computer with a neat labelled diagram. Describe the functions of each component in detail.
3. Discuss the five generations of computers. Explain the main characteristics, technologies used, examples, and advantages of each generation.
4. Explain the evaluation of a computer system. Discuss the criteria used for evaluating a computer.

#### **Unit 2**

##### **Short Answer Questions:**

1. Write a short note on Primary and Secondary storage.
2. Write short notes on Microcomputers and Minicomputers.
3. Write short notes on IP Address and Domain Name.
4. Write short notes on WWW and Email.
5. Define Computer Network and explain the need for networking.

### **Long Answer Questions:**

1. Discuss the types of computers and Explain features, uses, and examples.
2. Explain different types of computer networks and Compare their features with examples.
3. What is a network topology? Explain different types of topologies with neat diagrams.
4. Explain in detail the working of the Internet. Describe components like ISP, Modem, Router, and Servers.
5. What is Email? Explain the working of email with components and describe advantages.

## **Unit 3**

### **Short Answer Questions:**

1. What is word processor applications ? explain its main uses.
2. Write a short note on Mail Merge in MS word.
3. Discuss the steps involved in creating a table in MS word.
4. What are the main advantages of presentation tools?
5. What are Transitions in PowerPoint. Explain four types of transitions ?

### **Long Answer Questions:**

1. Describe the main components and operations of a word processor with examples.
2. Discuss the importance of Transitions and Animations in PowerPoint Presentations. Explain with examples.
3. Explain how multimedia elements are inserted into PowerPoint presentations.
4. Explain about the formatting documents in MS-Word.
5. Explain the features and advantages of a word processor in detail.
6. Explain navigational and document management shortcut keys in MS Word.

## **Unit 4**

### **Short Answer Questions:**

1. Write the syntax and example of SUM and AVERAGE functions.
2. What is XLOOKUP? Mention its advantages.
3. Explain the LEN and TRIM functions.
4. Write a short note on INDEX and MATCH.
5. Explain sorting and filtering.

### **Long Answer Questions:**

1. Explain the structure of a spreadsheet. Describe rows, columns, cells, and ranges.
2. Explain logical functions in Excel: IF, AND, OR, IFERROR with examples.
3. Explain text functions in spreadsheets: LEFT, RIGHT, MID, LEN, TRIM, CONCAT, TEXTJOIN.
4. Explain lookup and reference functions: VLOOKUP, HLOOKUP, INDEX, and MATCH.
5. Discuss data visualization in spreadsheets. Explain different types of charts and graphs.
6. Explain data handling techniques: sorting, filtering, and conditional formatting with examples.

## **Unit 5**

### **Short Answer Questions:**

1. What is a Pivot Chart?
2. Explain Input Message and Error Alert in Data Validation.
3. What is Scenario Manager?
4. Write a short note on Sparklines.
5. What are Named Ranges?

## Long Answer Questions:

1. Explain Pivot Tables and their components. How are they used for data summarization?
2. Explain Data Validation techniques in Excel with suitable examples.
3. Explain What-If Analysis tools: Goal Seek, Scenario Manager, and Data Tables.
4. Explain the concept of charts and dashboards. Describe steps to create an interactive dashboard.
5. Explain productivity tools in Excel: Named Ranges, Freeze Panes, and Split View.