

COMPUTER FUNDAMENTALS AND OFFICE AUTOMATION

BSC(CS/DS/AI)

Unit 1

5 Marks

1. Write the differences between Binary and Octal number systems.
2. Write short notes on Analytical Engine and Pascaline
3. Explain the role of the memory unit in a computer system
4. Explain the importance of computer generations in the development of computer technology
5. Explain the terms ALU and its role in the processing of data

10 Marks

1. Draw and explain the Block Diagram of a computer system. Describe the functions of each unit in detail.
2. Explain the different number systems with suitable examples and inter conversions.
3. Discuss in detail the Evolution of computers from early mechanical devices to modern-day systems.
4. Explain the five generations of computers technologies used main characteristics and examples of each generation.
5. Describe the functions of the CPU along with its major components .

Unit 2

5 Marks

1. Write a brief note on Microcomputers and their applications
2. What is LAN? Explain its characteristics and uses.
3. What is a Web Browser? List any five browsers and their features.
4. What is a computer network, and why do we need it?

5. Define IP Address. Write the differences between IPv4 and IPv6.
6. Write about the Bus topology with a neat diagram.
7. Different types of computer storages ?

10 Marks

1. Describe the various network topologies and draw neat diagrams for each.
2. Discuss the different categories of computer networks and illustrate them with suitable diagrams
3. Explain the different types of computers, giving examples and their major applications.
4. Explain the functional components of a computer system with a neat diagram
5. Explain the working of email and its components.

Unit 3

5 Marks

1. List and explain any five features of a word processor.
2. Explain the role of fonts, styles and colors in document formatting.
3. Describe the purpose of the spell-check and auto correct features in word.
4. Explain the any five applications of presentation tools?
5. Define Animations in PowerPoint. Describe the different categories of Animations.
6. Explain about Mail Merge in MS Word.

10 Marks

1. Explain the process of creating, formatting, and printing a document using MS word.
2. Discuss the concept of mail merge in MS word. Explain the step-by-step process of performing a mail merge.
3. Discuss the various multi media elements that can be inserted into slides in PowerPoint.
4. Explain the features of MS PowerPoint Presentations.

Unit 4

5 Marks

1. Define a spreadsheet and mention its uses.
2. What is cell referencing? Explain relative and absolute references.
3. Explain the IF function with syntax and example.
4. Write a note on conditional formatting.
5. What is the use of COUNT function?

10 Marks

1. Explain spreadsheet concepts such as rows, columns, cells, and cell referencing with examples.
2. Explain formulae and functions in MS Excel. Describe SUM, AVERAGE, COUNT, and IF functions.
3. What are charts and graphs? Explain the steps to create charts in MS Excel.
4. Explain data handling techniques in spreadsheets such as sorting, filtering, and conditional formatting.
5. Explain lookup functions in Excel. Describe VLOOKUP, HLOOKUP, and XLOOKUP with examples.

Unit 5

5 Marks

1. What is a Pivot Table? Mention any two uses.
2. Explain Data Validation dropdown list.
3. What is Goal Seek?
4. Write a short note on Slicers.
5. What is the use of Freeze Panes?

10 Marks

1. Explain Pivot Tables and Pivot Charts. Describe their importance in data analysis with examples.
2. Explain Data Validation in spreadsheets. Discuss dropdown lists, input messages, and error alerts.
3. What is What-If Analysis? Explain Goal Seek, Scenario Manager, and Data Tables.
4. Explain the steps involved in creating interactive dashboards using charts and Pivot Tables.
5. Explain combo charts and sparklines. How are they useful in data visualization?