

Computer Science – XI (Science)

Time: 3 hrs.

Full Marks: 75

Pass Marks: 30

Set - I Group A

Attempt all questions

[3X10=30]

1. Define memory. Explain the types of memory in details. [2+8]
2. What is Boolean algebra? Describe AND gate, NOR gate and XOR gate with gate symbol, Venn-diagram and Truth table. [2+8]
3. a. What is email? Explain the various types of emails. [2+3]
b. What is tag in html? Write the major features of web page. [2+3]

Group B

Attempt all questions

[9X5=45]

1. Distinguish between microcomputer and minicomputer. [5]
2. State and prove De Morgan's Laws. [5]
3. Solve the following [2.5+2.5]
 - Convert $(102.85)_{10}$ into binary system
 - Subtract $1101-1111$ using 2's Complement
4. What is cache in computer system? Explain the uses of cache in computer. [2+3]
5. Write short notes: [2.5+2.5]
 - Email
 - ENIAC
6. Differentiate between CRT monitor and LCD Monitor. [3+2]
7. Differentiate between SRAM and DRAM [5]
8. Differentiate between multiprogramming OS and multiprocessing OS. [5]
9. What is word processor? Write the functions of thesaurus and mail merge. [2+3]

Set - II

Group A

Attempt all questions

[3X10=30]

1. "An Operating system is an interface between human operators and machine." Justify. your answer. [10]
2. What is memory? Classify and explain the importance of various types of memories. [2+8]
3. a. What is open source operating system? Write notes about UNIX operating system. [2+3]
b. Differentiate between serial and parallel port? How are they different from USB port? [3+2]

Group B

Attempt any **nine** questions

[9X5=45]

4. Explain the contribution of Charles Babbage in the history of computer [5]
5. Differentiate between microcomputer and minicomputer. [5]
6. Define logical gate. Write the t-table, logical symbol and v-diagram for XOR gate. [2+3]
7. Solve the followings: [2.5+2.5]
 - Convert $(ABC)_{16}$ into base 8
 - Convert $(905)_{10}$ into BCD
8. Is there any difference between CPU & microprocessor? Write functions of CPU. [1+1+3]
9. Write short notes: [2.5+2.5]
 - ASCII
 - Compiler
10. What is utility software? Explain the use of various utility software. [2+3]
11. What is open source software? Write merits and demerits of such software. [2+3]
12. Explain the popular internet services: www and messaging service. [2+3]

Set - III

Group A

Attempt all questions

[3X10=30]

1. What is virtual memory? Explain how it differs from primary memory and secondary memory. [4+6]
2. What is VDU? Describe various categories of monitors with respective merits and demerits. [2+8]
3. a. What is Internet? Explain advantage and disadvantage of Internet. [2+3]
b. What is tag in html? Write the major features of web page. [2+3]

Group B

Attempt any nine questions

[9X5=45]

4. What is computer system? Explain the characteristics: diligence, word length and versatility.
5. Differentiate between minicomputer computer and mainframe computer.
6. Define number system. Convert $(410.14)_8$ into decimal number system.
7. What is 2's complement? Subtract $(1100)_2$ and $(1111)_2$ using 2's complement.
8. Differentiate between XOR gate and XNOR gate.
9. What are cache memory and Buffer memory?
10. Differentiate between online processing and real time processing.
11. What is presentation software? Write the features of animation tool and slide transitions tool.
12. Write short notes:
 - Touch pad
 - Light pen

Set - IV

Group A

Attempt all questions

[3X10=30]

1. What is an operating system? Explain the function of operating system. [2+8]
2. Differentiate between impact printers and non-impact printers. Also explain various types of impact printers with respective merits and demerits. [4+6]
3. a. What is Internet? Explain the advantages and disadvantages of Internet. [5]
b. Explain the properties of tags: <EMBED> tag and tags with examples. [5]

Group B

Attempt any nine questions

[9X5=45]

4. What is decimal number system? Convert $(100110.101)_2$ into decimal number system.
5. What is 1's complement? Subtract $(101000)_2$ from $(1111)_2$ using 1's complement method.
6. Define Internet. Describe the advantage and disadvantage of Internet.
7. What is bus system? Explain different types of buses in computer system.
8. Describe the tag <marquee> with its attribute and example used in HTML.
9. What is word processor? Write the features of mail merge tool and endnote tool.
10. Write short notes:
 - Open source operating system
 - Multiprogramming
11. Differentiate between multiprocessing and multiprogramming.
12. What is Power Point? Write the features, advantage and disadvantage of Power Point.

Set - V

Group A

Attempt all questions

[3X10=30]

1. Define the term 'computer architecture' and 'computer organization'. Explain the different units of computer system with suitable block diagram. [4+6]
2. What is logic gate? Describe NAND gate, NOT gate and XNOR gate with gate symbol, Venn-diagram and Truth table. [2+8]
3. What is architecture of operating system? Explain the different types of operating system with suitable examples. [2+8]

Group B

Attempt all questions

[9X5=45]

4. Describe octal number system with example. Convert $(410.125)_{10}$ into octal number system.
5. What is 2's complement? Subtract $(11)_2$ from $(111110)_2$ using 2's complement.
6. Describe the terms: URL and DNS with examples.
7. Define the tag `<body>` with its attributes and examples used in HTML.
8. What is printer? Differentiate between impact and non-impact printer with examples.
9. What is presentation software? Write the features, applications and examples of presentation software.
10. Write short notes:
 - Booting
 - Linux
11. How do you measure the capacity of processing speed and memory of computer system?
12. Differentiate between digital computer and analog computer.