

Total number of printed pages-4

63(FY)SEM-1/CSCSEC1013

2024

COMPUTER SCIENCE

Paper : CSCSEC1013

(ICT Hardware)

Full Marks : 40

Pas Marks : 16

Time : Three hours

The figures in the margin indicate full marks for the questions.

1. Choose the correct answer : 1×5=5

(a) Which of the following is a tool used for scanning and repairing hard disk errors ?

- (i) Disk Cleanup
- (ii) Error Checking
- (iii) Disk Defragmentation
- (iv) Virus Scanner

- (b) What does BIOS stand for in computer systems ?
- (i) Basic Input Output System
 - (ii) Binary Input Output System
 - (iii) Backup information Operating System
 - (iv) Basic Internal Operating System
- (c) Which memory type allows faster access to frequently used data by the processor ?
- (i) ROM
 - (ii) Cache Memory
 - (iii) Virtual Memory
 - (iv) Hard Disk
- (d) Which component connects the processor to other hardware on the motherboard ?
- (i) Power Connector
 - (ii) USB
 - (iii) Bus Slot
 - (iv) Pin Connector

(e) Which type of connector is used to connect Ethernet cables ?

(i) USB

(ii) HDMI

(iii) RJ45

(iv) VGA

2. Answer the following questions (**any five**) : $2 \times 5 = 10$

(a) Define BIOS and mention its function in the boot process of a computer system.

(b) Explain the purpose of disk defragmentation.

(c) What is the function of a motherboard in a computer system ?

(d) What is MIDI in the context of multimedia ?

(e) Explain the difference between RAM and ROM.

(f) What is an IP address used for in networking ?

(g) What is a Network Interface Card (NIC) ?

3. Answer the followings questions (**any three**): $5 \times 3 = 15$

(a) Differentiate between FAT and NTFS file systems. Highlight their key features and use cases.

- (b) Define multimedia and explain its key components.
- (c) What is cache memory ? Discuss its role in improving system performance.
- (d) What are the different types of connectors found on a motherboard ? Explain the role of power and peripheral connectors.
- (e) Explain the purpose and function of a switch in a network. How does it differ from a hub ?

4. Answer the following (**any one**) : $10 \times 1 = 10$

- (a) Explain the major components of computer hardware viz., monitor, keyboard, mouse, scanner, printer, speaker, and SMPS. Discuss their roles in a computer system.
- (b) Explain the concept of virtual memory and cache memory in modern computing. How do they help in improving the performance of a computer system, and how are they different from RAM and ROM ?