

Chapter 01 – Computer Science (Class 10)

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Multiple Choice Question & Answers

Q1: Select the best answer for the following MCQs.

1. What is the binary representation of the decimal number -43 using 8-bit two's complement notation?

- a) 10101011
- b) 11010101
- c) 11010101
- d) 11101011

☒ **Correct Answer: d) 11101011**

2. Which of the following binary numbers corresponds to the hexadecimal number 3FA7?

- a) 0011 1111 1010 0111
- b) 1100 0011 1101 1000
- c) 1011 1100 0011 0111
- d) 0111 1011 1011 1100

☒ **Correct Answer: a) 0011 1111 1010 0111**

3. How does the ASCII code for the character 'Z' (90 in decimal) look in binary?

- a) 01011010
- b) 01001110
- c) 01011000
- d) 01101001

☒ **Correct Answer: a) 01011010**

4. In an 8-bit signed integer representation, what is the range of values that can be represented?

- a) -127 to 128
- b) -128 to 127
- c) 0 to 255
- d) -256 to 255

☒ **Correct Answer: b) -128 to 127**

5. How many different values can be represented with a 10-bit binary number?

- a) 256

- b) 1024
- c) 512
- d) 2048

☒ **Correct Answer: b) 1024**

6. Which of the following is NOT a task performed by an operating system?

- a) Process Management
- b) Memory Management
- c) Email Management
- d) Device Management

☒ **Correct Answer: c) Email Management**

7. Which type of operating system allows multiple tasks to be performed at the same time?

- a) Multiprogramming
- b) Batch Processing
- c) Real-time
- d) Single-tasking

☒ **Correct Answer: a) Multiprogramming**

8. Which state of a process represents that it is ready for execution but waiting for CPU time?

- a) Start State
- b) Running State
- c) Ready State
- d) Blocked State

☒ **Correct Answer: c) Ready State**

9. What is the main purpose of a process scheduler?

- a) To manage file operations
- b) To manage CPU utilization
- c) To manage memory allocation
- d) To manage network resources

☒ **Correct Answer: b) To manage CPU utilization**

10. Which memory management approach involves dividing memory into fixed-sized blocks?

- a) Paging
- b) Segmentation

- c) Virtual Memory
 - d) Contiguous Allocation
 - ✓ **Correct Answer: a) Paging**
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11. What is the main purpose of interrupts in an operating system?

- a) To speed up CPU processing
 - b) To slow down CPU processing
 - c) To handle immediate events
 - d) To manage network connections
 - ✓ **Correct Answer: c) To handle immediate events**
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12. Which scheduling algorithm assigns CPU time in fixed time slices to each process in a cyclic order?

- a) First-Come First-Served (FCFS)
 - b) Shortest Job Next (SJN)
 - c) Priority Scheduling
 - d) Round Robin (RR)
 - ✓ **Correct Answer: d) Round Robin (RR)**
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13. Which memory management technique divides memory into fixed-sized blocks?

- a) Segmentation
 - b) Paging
 - c) Fixed Partitioning
 - d) Dynamic Partitioning
 - ✓ **Correct Answer: b) Paging**
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14. Which type of hosting involves installing and running software on servers located within an organization's physical premises?

- a) Shared Hosting
 - b) Dedicated Hosting
 - c) On-Premises Hosting
 - d) Cloud Hosting
 - ✓ **Correct Answer: c) On-Premises Hosting**
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15. Which component of programming software translates code written in a high-level programming language into machine code?

- a) Text Editor

- b) Compiler
- c) Debugger
- d) IDE

☒ **Correct Answer: b) Compiler**

The End

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