CORE-VIII FUNDAMENTALS OF COMPUTERS

LONG QUESTIONS:

1. Explain the basic components of a computer system and their functions. How do these components work together to perform tasks?
2. Discuss the history and evolution of computers, from early mechanical devices to modern digital computers. What were the key milestones in computer development?
3. Describe the Von Neumann architecture and its significance in computer design. How does it influence the organization of modern computers?
4. Examine the functions of the central processing unit (CPU) in a computer. How does it execute instructions and process data?
5. Discuss the concept of computer memory and storage devices. Differentiate between RAM and ROM and explain their roles in data processing.
6. What are input and output devices in computer systems? Provide examples of each and explain their roles in information exchange with users.
7. Explain the binary numbering system and its importance in computer representation. How do computers use binary code to store and process data?
8. Describe the role of an operating system in computer management. What are the primary functions of an operating system, and how does it interact with hardware and software?
9. Discuss the differences between system software and application software. Provide examples of each and explain their roles in computer operation.
10. Examine the various types of computer networks, including LANs, WANs, and the internet. How do networks enable communication and data sharing among devices?
11. What is the World Wide Web (WWW), and how does it function? Explain the role of web browsers in accessing and navigating web content.
12. Discuss the evolution of programming languages and their significance in software development. How do different programming languages cater to various application domains?
13. Explain the concept of algorithms and their role in solving computational problems. Provide examples of algorithms used in everyday computing tasks.
14. What are data structures, and why are they crucial in computer science? Describe common data structures and their applications in organizing and manipulating data.
15. What is programming language? Explain its types and function.

SHORT QUESTIONS:

1. What is a computer?
2. Define hardware and software in computing.
3. What are the basic components of a computer system?
4. What is the CPU, and what does it do in a computer?
5. Explain the role of RAM in a computer.
6. Differentiate between RAM and ROM.
7. Give examples of input devices.
8. Give examples of output devices.
9. What is binary code?

10. What does an operating system do?

11. Provide examples of operating systems.

12. What is the difference between system software and application software?

13. What is a computer network?

14. Explain the term "internet."

15. What is a web browser used for?

16. Describe the evolution of programming languages.

17. What is an algorithm?

18. Why are data structures important in computing?

19. Define object-oriented programming (OOP).

20. What is an IP address in networking?

21. What does CPU stand for?

22. What does RAM stand for?

23. What does ROM stand for?

24. Give an example of an input device.

25. Give an example of an output device.

26. What is a byte?

27. Define software.

28. Explain the term "binary."

29. What is a computer program?

30. What is a computer virus?