Duration: 3 Hours   Maximum Marks: 75

All questions carry equal marks.
Attempt any Four Questions.

Q. 1   What is the need of RAM and ROM in a computer system? Differentiate between RAM and ROM. List different types of ROM. What is BIOS and which type of ROM it is ? Arrange the following storage devices from slow to fast access speed with justification- 512 MB cache memory, 2GB RAM, 1TB Hard disk and 2MB magnetic disk .

Q. 2   Draw a block diagram to illustrate the basic organization of a computer system and explain the functionalities of all the components shown in the block diagram.

Q. 3   What are the objectives of an operating system? Differentiate between multiprocessing and multiprocessor operating systems. What do you understand by a client-server network? Is it possible for a computer to be both a client and a server at the same time? If so, explain with the help of an example.

Q. 4   What is Data Communication? Write down the fundamental characteristics for effective data communication. List and describe different types of data transmission modes. On which mode a two-way radio is operated and why? Explain different types of transmission medium.

Q. 5   Why are input and output devices necessary for a computer system? What are pointing devices? Discuss any three commonly used pointing devices. Explain three basic qualities on which computer monitor clarity depends. Differentiate between impact printers and non-impact printers. Explain each type of printer with the help of an example.

Q. 6   Write and explain the benefits of Data Base Management System (DBMS) and its different components. A company keeps a customer table that contains company data about each customer account and one Item table that contain data about each item. The columns (or fields) for the customer table are Customer ID, Customer Name, Company Name and Company Address; the columns for an Item table are Item ID, Item Name, Customer ID, Item Price and Quantity. The tables can be related based on the common Customer ID field. Identify and list the following terms in each of the above two tables- Entity with its Attributes, Primary Key and Foreign Key.