



- Notes :
1. All questions are compulsory and carry equal marks.
  2. Draw neat and labelled diagram and use supporting data wherever necessary.
  3. Avoid vague answer and write specific answer related to question.

**Either:**

1. a) Write a note on 8
  - i) Machine language. ii) Assembly language
- b) What is translator? What is the need of translator? 8

**OR**

- c) Explain function-oriented programming language in detail. 8
- d) Explain the following. 8
  - i) Linker ii) Loader

**Either:**

2. a) Define algorithm. Give the advantages and disadvantages of algorithm. 8
- b) What is flowchart? List & explain the various shapes to draw flow chart. 8

**OR**

- c) What is Big-O notation? Explain with suitable example. 8
- d) Write an algorithm to find the average of three nos. 8

**Either:**

3. a) What is data type? Explain the role of data type. 8
- b) Explain the following statements. 8
  - i) Continue ii) Break

**OR**

- c) What is character set? Explain it in detail. 8
- d) Write an algorithm to find the factorial of a given no. 8

**Either:**

4. a) Define array? What is the need of array. 8
- b) Write an algorithm to insert an element in a array. 8

**OR**

- c) Define array. Draw the representation of one dimensional array. 8
- d) Write an algorithm to find the transpose of a matrix. 8

5. Solve all the questions.
  - a) Define assembler and interpreter. 4
  - b) Write a note on problem analysis. 4
  - c) Explain do-----while in detail with suitable example. 4
  - d) What is modular programming? Explain. 4

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