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**Instructions to the students:**

- i) All questions are compulsory. ii) Neat diagrams must be drawn wherever necessary.  
 iii) Figures to the right indicate full marks. iv) Use of scientific calculator is allowed  
 v) Assume suitable data, if necessary.

| Q. No. | Question  | CO  | Marks | BL |
|--------|---|-----|-------|----|
| 1      | a) Differentiate between entry-controlled loop and exit controlled loop using suitable example?                   | CO2 | [05]  | L2 |
|        | OR  |     |       |    |
|        | b) Describe Branching or Conditional statements used for decision control with one suitable program of each type. | CO2 | [05]  | L2 |
|        | c) Write program to display grades of student using switch case statements  | CO2 | [05]  | L3 |
|        | OR  |     |       |    |
|        | d) Write a program to display following pattern in output using for loop:<br>*<br>* * *<br>* * *                  | CO2 | [05]  | L3 |
| 2      | a) Illustrate the elements of user defined function with suitable example   | CO3 | [05]  | L2 |
|        | OR  |     |       |    |
|        | b) Difference between Call by value and Call by reference with one suitable example.                              | CO3 | [05]  | L2 |
|        | c) Write a program to find the factorial of given number using recursive function.                                | CO3 | [05]  | L3 |
|        | OR  |     |       |    |
|        | d) Write a program to find the area of Square using call by reference function.                                   | CO3 | [05]  | L3 |

BL - Bloom's Taxonomy Levels (1- Remember, 2- Understand, 3 - Apply, 4 - Analyze, 5 - Evaluate 6 - Create). CO- Course Outcome