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Total No. of Pages: 02

Total No. of Questions: 09

**B.Tech (Sem. – 1,2)**  
**PROGRAMMING FOR PROBLEM SOLVING**

Subject Code: BTPS-101-18

M Code: 75346

Date of Examination : 28-01-23

Time: 3 Hrs.

Max. Marks: 60

**INSTRUCTIONS TO CANDIDATES:**

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION - B & C have FOUR questions each, carrying EIGHT marks each.
3. Attempt any FIVE questions from SECTION B & C, selecting atleast TWO questions from each of these SECTIONS B & C.

**SECTION-A**

1. Write briefly:
  - a. Differentiate between primary and secondary memory.
  - b. What is algorithm? Give an example.
  - c. Give an example of run time error.
  - d. What is a pointer? Give an example of how to use integer pointer.
  - e. Define recursion. Give an example.
  - f. Explain various in-built data types.
  - g. Explain various logical operators with the help of an example each.
  - h. What is a string? How can we compute the length of a string?
  - i. What is continue statement? Give an example using for loop.
  - j. Why should one prefer call by address method using a function to swap two numbers?

## **SECTION-B**

2. What are the advantages of using flowchart? Create a flowchart to find if the given number is prime or not.
3. What is while loop? Write syntax for the same. Write a program to find if the given number is prime or not.
4. Explain in detail various components of computer system. Explain various types of computer memory.
5. Explain in detail different data types used in c programming language.

## **SECTION-C**

6. How many methods are there to pass value to a function? Write a program to swap two numbers using call by address method with the help of a function.
7. How can we create a 2-D array? Write a program to display sum of all elements of a 2-D array.
8. What is a structure? How can we initialize the members of a structure? Write a program to create a simple structure for storing information of an employee.
9. Explain in detail all types of control statements with the help of syntax for each.

**NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.**