

Roll No.

Total No. of Pages : 02

Total No. of Questions : 18

**B.Tech. (Chemistry Group) (2018 & Onwards) (Sem.-1,2)**  
**B.Tech. (Agriculture Engg./Automation Robotics/  
(Automobile Engg./BT/Civil Engg./Computer Engg./CSE/  
Electrical & Electronics Engg./Electrical Engg./ECE/  
Electronics & Electrical Engg./FT/IT/ME)**

**PROGRAMMING FOR PROBLEM SOLVING**

**Subject Code : BTPS-101-18**

**M.Code : 75346**

**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.
3. Attempt any FIVE questions from SECTION B & C carrying EIGHT marks each.
4. Select atleast TWO questions from SECTION - B & C.

**SECTION-A**

**Write briefly :**

- 1) What is the syntax of nested If statement?
- 2) What is a conditional operator in C?
- 3) What is a case statement?
- 4) What is arithmetic operator?
- 5) Differentiate between compiler & interpreter.
- 6) What is a function?
- 7) How many byte are required for Int a[20] statement?
- 8) What is an algorithm?
- 9) How structure is represented?
- 10) What is a conditional statement?

## SECTION-B

- 11) Write a program to find the difference of two matrix.
- 12) Draw flow chart to find the largest and smallest of three numbers.
- 13) Write a program to sort a given list of numbers in ascending order.
- 14) Write short notes on the following :
  - a) Break and continue
  - b) Passing value between functions C".

## SECTION-C

- 15) Explain the following terms of C language with examples.
  - a) Static Variables
  - b) External Variables
  - c) Automatic Variables
- 16) Write a Recursive and non-recursive function for determining the factorial of a given number.
- 17) Write the syntax with two different examples each for :
  - a) Struct
  - b) Union State how much memory would be required for each of your examples.
- 18) Write a "C" program to find out a solution for given quadratic equation.

**NOTE : Disclosure of identity by writing mobile number or making passing request on any page of Answer sheet will lead to UMC case against the Student.**