Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 02

Total No. of Questions : 09

B.Tech (Chemistry Group) (2018 Batch) (Sem.–1,2)
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

1. **Write short notes on :**

    a. What is the syntax of If-else statement?

    b. What is the pseudo code?

    c. What is an flow chart?

    d. What is the difference secondary and primary memory?

    e. What is the Scope of a extern variable?

    f. What are the arithmatic operators available in a language?

    g. How many byte are required for real a[20] statement?

    h. What are the syntax of Printing statements in a programming language?

    i. What is printf statements?

    j. What is a compiler?

SECTION-B

2. What is an algorithm? Differentiate between an algorithm and a flow chart. What are the symbols used in flowchart?

3. Draw a flowchart to find the maximum number of a given series of data.

4. Explain the following terms of C language with examples.

   a) Static variables

   b) External variables

   c) Automatic Variables

5. Write a Recursive and non-recursive function for determining the factorial of a given number.

SECTION-C

6. What are the various types of software used in computer? Explain each of them with example.

7. What is the specification of a Latest PC? Explain the functionality of each of the component.

8. What are the various Control Structures available in a programming Language? Explain with example.

9. Write a program to find the difference of two matrix using functions.

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.

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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)

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SECTION-A

Write breifly :

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.

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Roll No. □□□□□□□□□□□□   Total No. of Pages : 02

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B.Tech All Batches Chemistry (2018 Batch) (Sem.–1)
PROGRAMMING FOR PROBLEM SOLVING
Subject Code : BTPS-101-18
Paper ID : [75346]

Time : 3 Hrs.   Max. Marks : 60

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

SECTION-A

l. Write short notes on :

 a. What is the syntax of If statement?

 b. What is the syntax of Switch Statement?

 c. What is the syntax of do While statement?

 d. What is a pointer?

 e. What is the Scope of local variable?

 f. What are the conditional operators available in C?

 g. What is RAM?

 h. What is a complier?

 i. What are the syntax of PRINTF statements of C

 j. What is the need for operating system?

SECTION-B

2. What is an operating system? What do you mean by booting? Also explain what is meant by loading, saving, compiling & execution of a program?

3. Explain the block diagram of a computer. Also explain the difference between primary memory & secondary memory.

4. What is a flow chart? Draw flow chart to find the smallest of three numbers.

5. What are the various applications of computers?

SECTION-C

6. Write a program to reverse the digits of a number and sum of the digits.

7. What are the user defined data types in C. Explain with example?

8. Write a program using functions to find the all types of roots of a quadratics equation.

9. Write a program to find the sum of two matrices.