

22226

12425

03 Hours / 70 Marks

Seat No. 

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- Instructions –*
- (1) All Questions are *Compulsory*.
  - (2) Answer each next main Question on a new page.
  - (3) Illustrate your answers with neat sketches wherever necessary.
  - (4) Figures to the right indicate full marks.
  - (5) Assume suitable data, if necessary.
  - (6) Use of Non-programmable Electronic Pocket Calculator is permissible.
  - (7) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

**Marks**

1. **Attempt any FIVE of the following:** **10**
- a) Define term flowchart and draw two symbols used in flowchart.
  - b) Define keywords with example.
  - c) Explain ternary operator.
  - d) Define array. Enlist type of array.
  - e) List and four string library functions with syntax.
  - f) Define pointer with example.
  - g) Define structure in C.

P.T.O.

**2. Attempt any THREE of the following: 12**

- a) Define Algorithm. Write an algorithm to find average of two numbers.
- b) Illustrate the use of switch-case statement with example.
- c) Explain declaration and initialisation of two dimensional array with example.
- d) Find the output of following code void main ( ).

```
{int a, b, c, x, y;  
    int *P1, *P2;  
    x = 10;  
    y = 20;  
    P1 = &x;  
    P2 = &y;  
    a = *P1 + *P2;  
    b = *P1 - *P2;  
    c = *P1 * *P2;  
    d = *P2/*P1;  
    Printf ("a = %d\n b = %d \n c= %d \n d = %d", a, b, c, d);  
    getch ( ); }
```

**3. Attempt any THREE of the following: 12**

- a) Explain logical operators with example.
- b) Describe recursion with example.
- c) Explain two input and two output statement with example.
- d) Explain syntax and use of following four math function:
  - i) Floor ( )
  - ii) Pow ( )
  - iii) Sqrt ( )
  - iv) abs ( )

**4. Attempt any THREE of the following:****12**

- a) Write algorithm and draw flowchart to find factorial of a number.
- b) Write a program to find percentage of student marks of five subjects accept the marks from user.
- c) Write a C program to print following pattern using for loop.

```

1
1 2
1 2 3
1 2 3 4
1 2 3 4 5

```

- d) Write a C program to declare array of 10 elements and find out largest element from array.
- e) Write a C program to find factorial of a number using function.

**5. Attempt any TWO of the following:****12**

- a) Write a program to print season of a month using switch-case statement. Where following data is provided:

Month	Season
Dec., Jan., Feb.	Winter
Mar., Apr., May	Spring
Jun., July, Aug.	Summer
Sept., Oct., Nov.	Auntmn

- b) Write a program to take input for two 3×3 matrices and calculate multiplication of it. Display the result.
- c) Develop a program to find sum of 10 array elements using pointer.

**6. Attempt any TWO of the following:****12**

- a) Write a program to declare structure book having data members book\_name, book\_author, book\_price, book\_publication, book\_no\_of\_pages. Accept and display information for two books.
  - b) Write a program to perform multiplication of two numbers using call by reference.
  - c) Write a program to read an array of characters using pointer and count number of vowels in the given array.
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