

22226

21222

3 Hours / 70 Marks

Seat No.

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15 minutes extra for each hour

- Instructions* – (1) All Questions are *Compulsory*.
- (2) Illustrate your answers with neat sketches wherever necessary.
- (3) Figures to the right indicate full marks.
- (4) Assume suitable data, if necessary.
- (5) 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) Draw and label different symbols used in flowchart.
- b) List any four keywords used in 'C'
- c) State any four decision making statements.
- d) Define array. List its types.
- e) Write syntax and use of PQW () function or `<math.h>` header file.
- f) State the syntax to declare a pointer variable with example.
- g) Draw flowchart for addition of two numbers.

P.T.O.

2. Attempt any THREE of the following: 12

- a) Write an algorithm to find largest of three numbers.
- b) Explain do while loop with example.
- c) Differentiate between character array and integer array with respect to size and initialisation.
- d) Explain meaning of following statements with reference to pointers

```
int *a, b ;
```

```
b = 20 ;
```

```
*a = b ;
```

```
a = &b ;
```

3. Attempt any THREE of the following: 12

- a) Describe the following terms :
 - (i) Keyword
 - (ii) Identifier
 - (iii) Variable
 - (iv) Constant
- b) List the categories of functions and explain any one with example.
- c) State the use of printf() and scanf() with suitable example.
- d) Give any four differences between call by value and call by reference.

- 4. Attempt any THREE of the following:** **12**
- a) Draw flowchart for finding largest number among three numbers.
 - b) Write a program to display table of given number (Accept number from user).
 - c) Write a program to sum all the even numbers between 1 to 100.
 - d) Develop a program to find the factorial of a number using recursion.
 - e) Write a program to accept ten numbers in an array. Sort array elements and display it.
- 5. Attempt any TWO of the following:** **12**
- a) Write a program to print Fibonacci series starting from 0 and 1.
 - b) Write a program for addition of 3×3 matrices.
 - c) Write a program to compute the sum of all elements stored in an array using pointers.
- 6. Attempt any TWO of the following:** **12**
- a) Write a program using structure to display information of employee which consist of employee id, name, age and salary.
 - b) Write a program to demonstrate use of strcmp(), strcpy(), strlen(), strcat().
 - c) Write a program to perform arithmetic operations on pointer.
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