

17212

11718

3 Hours / 100 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) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any TEN of the following :

20

- (a) Define global variable.
- (b) State any four data types in 'C'.
- (c) State any four string handling function.
- (d) Define recursive function.
- (e) State any four relational and logical operators.
- (f) State uses of * and & operators with respect to pointer.
- (g) State uses of continue statement.
- (h) State any two advantages of function.
- (i) State any two features of C language.
- (j) Write the Syntax of switch case statement.
- (k) Define array. How one dimensional array is declared ?

[1 of 4]

P.T.O.

- (l) Write output of following program :

```
void main ( )  
{  
    int m;  
    for (m=1 ; m < 5 ; m++)  
        printf("%d \n", (m%2) ? m : m * 2);  
}
```

2. Attempt any FOUR of the following :

16

- (a) Explain the term flowchart and algorithm with an example.
- (b) Explain nested if-else with example.
- (c) State any four rules for choosing variable name.
- (d) Write a program to display prime numbers between 1 to 50.
- (e) Write a program to find transpose of 3×3 matrix.
- (f) Write a program to calculate factorial of number.

3. Attempt any FOUR of the following :

16

- (a) Explain static and external variables.
- (b) Write a function to exchange values of two variables using call by reference.
- (c) Write a program to find length of given string without library function.
- (d) Explain break statement with an example.
- (e) Explain the use of do-while statement. Also draw the flow-chart for the same.
- (f) Write a program to reverse given integer number (input = 4567 reverse is 7654).

4. Attempt any FOUR of the following :**16**

- (a) Write a program that will obtain the length and width of rectangle from user and compute area and perimeter.
- (b) State any four control statements.
- (c) State any four difference between if and switch statement.
- (d) Write a program to sort array element in descending order.
- (e) Explain strcat and strcmp function with example.
- (f) Distinguish between global and local variable.

5. Attempt any FOUR of the following :**16**

- (a) Write a program to print sum of odd numbers between 20 to 50.
- (b) Explain declaration and initialization of two dimensional array.
- (c) Explain structure with suitable example.
- (d) Explain recursive function with an example.
- (e) Explain arithmetic operators that are used with pointer variable.
- (f) Define pointer. Describe & (ampersand) and * (asterisk) operators in pointers.

6. Attempt any FOUR of the following :**16**

- (a) Explain any four bitwise operators used in 'C' with example.
- (b) Write a function to find largest number in an integer array.
- (c) Write a program to show use of array of pointers.

P.T.O.

- (d) Explain declaration and initialization of pointer variable.
- (e) Write a program to declare a structure employee having name, designation and salary. Accept and display this information for five members.
- (f) Write a program to display Floyd's triangle as follow :

```
1
2 3
4 5 6
7 8 9 10
```
