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15162 3 Hours / 100 Marks

Seat No.

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.

1. Attempt any TEN of the following :

- (a) Enlist any four keyword used in C.
- (b) What is operator precedence and associativity ?
- (c) Draw the flow-chart of switch statement.
- (d) Write syntex and use of (i) strcmp() (ii) strcpy()
- (e) Write output of following program :

include <stdio.h>

void main()

{ int i;

```
for(i=-1;i<=10;i++)
```

```
{
```

}

if(i<5)

continue;

else

break;

printf("Hello \n\n");

```
}
```

```
2 \times 10 = 20
```

```
P.T.O.
```

- (f) List different types of function.
- (g) State the advantage of function.
- (h) What is the use of (->) operator with pointers ?
- (i) Write the syntax of do-while loop.
- (j) Define the term (i) identifier (ii) token.
- (k) State any two differences between while and do-while statement.
- (1) Find error in following program and justify it :
 #include<stdio.h>
 void main()

{

int x; int xx[3]={111, 222, 333, 444}; for (i=0; j<3;i++) printf("%f",a[i]);

2. Attempt any FOUR of the following :

$4 \times 4 = 16$

- (a) Explain ? : operator with suitable example.
- (b) Explain any four bit wise operators used in C with example.
- (c) Enlist any four types of arithmetic operators used in C and give one example of each.
- (d) State any four advantages of using flow-chart.
- (e) Write a program to print following pattern :
 - 1 2 3 4 5 6 7 8 9 10
- (f) State any four differences between if and switch statement.

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3. Attempt any FOUR of the following :

- (a) Write a program to display whether entered number is positive integer or not.
- (b) Write a program to take input as a number and reverse it by using while loop.
- (c) State any four control statement.
- (d) Write a program to print fibonacci series.
- (e) Explain else-if ladder with flow-chart.
- (f) Write a program to display all even numbers from 1 to N.

4. Attempt any FOUR of the following :

- (a) Explain the declaration and initialize of character array.
- (b) How the size of an array is calculated ? Explain with suitable example.
- (c) Write a program for addition of two 3×3 matrix.
- (d) Explain recursion with example.
- (e) Write a program to exchange value of two integer numbers using function.
- (f) Write a program to declare a structure stationery having data member, name quantity and cost. Accept and display this information for five items.

5. Attempt any FOUR of the following :

- (a) Explain strlen() and strcat() string handling function from standard library.
- (b) Write a program to sort array element in ascending order.
- (c) Explain call by reference function with example.
- (d) What is array of structure ? List any two differences between array and array of structure.
- (e) State four storage class. Explain any one.
- (f) How structure member are access ? Give example.

$4 \times 4 = 16$

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(a)

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6. Attempt any FOUR of the following :

- Explain global and local variable with example.
- (b) Define pointer. How it declared and initialized ?
- (c) Write a program to show use of array of pointers.
- (d) State any two advantages and disadvantages of pointer.
- (e) State four arithmatic operations perform on pointer with example.
- (f) Explain use of pointer in array.