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Full Marks : 50

Time : 3 hours

The figures in the right-hand margin indicate marks

Answer **all** Sections as directed

Section—A

(Objective Type Questions)

1. Choose the correct answer from the given options : 5×1

(a) Which one of the following loop constructs will always be executed once?

(i) for

(ii) while

(iii) switch

☒ (iv) do....while

(b) What is essentially required in each 'C' program?

☒ (i) A main() function

(ii) A user defined function

- (iii) Both
 - (iv) None of the above
- (c) A string in 'C' is an _____ of characters.
- ☒ (i) array
 - (ii) pointer
 - (iii) structure
 - (iv) None of these
- (d) A structure can have multiple elements of
- (i) different datatype
 - (ii) same datatype
 - ☒ (iii) same or different datatype
 - (iv) None of the above
- (e) A function that calls itself repeatedly is known as _____ function.
- (i) exclusive
 - ☒ (ii) recursive
 - (iii) formative
 - (iv) evaluative

(3)

2. Fill in the blanks :

5×1

- (a) An array is a collection of items of same datatype.
- (b) A string in 'C' is terminated by null char character.
- (c) A variable which stores the address of another variable is called pointer.
- (d) Loops that are placed inside another loops are known as nested loop.
- (e) A float variable in 'C' requires 4 byte bytes for storing the value.

Section—B

(Short Answer Type Questions)

Answer any two questions :

2×5

- ✓ 3. Briefly discuss the similarities and differences between an array and structure.
- 4. Explain switch....case....default statement with an example.
- ✓ 5. Write a program to generate the multiplication table of a number entered by the user.

(4)

6. Write a program to sort ten numbers in an array using Bubble Sort method.

Section—C

(Long Answer Type Questions)

Answer *any three* questions :

3×10

- ✓ 7. What is user defined function? Write a program to explain Call by Value with a suitable example.
8. Explain any five string functions used in 'C'.
9. Describe various storage classes in 'C'.
- ✓ 10. What do you understand by dynamic memory allocation? Write a 'C' program store n number of integers using dynamic memory allocation functions.
- ✓ 11. What is pointer? Write a program to store 10 numbers in an array and display them using pointer notation.
