

17212

15116

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**
- Write syntax and use of if-else statement.
 - State difference between array and string.
 - Define function
 - Explain strlen () string function
 - What is mean by lifetime and scope of variable ?
 - Define token and identifier.
 - What is conditional operator ?
 - What is function ? What is need of function ?
 - State any four control statements.
 - State what is the use of break and continue statement.

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17212

[2]

Marks

- k) Give the meaning of :-
`int *ptr;`
`int a;`
`ptr = &a;`
- l) What is difference between while and do-while loop ?

2. Attempt any FOUR of the following : 16

- a) Write a C program to calculate factorial of a number.
- b) Explain with syntax and example `strcmp()` and `strcat()` functions.
- c) Explain formatted input and formatted output statement.
- d) What is recursive function ? Explain with example.
- e) With syntax explain else if ladder and its execution. Also draw flowchart for else-if ladder.
- f) Write a program using pointer to swap the value of two integer numbers.

3. Attempt any FOUR of the following : 16

- a) Explain in brief auto and extern storage class.
- b) Explain with example array of pointer.
- c) Explain special operator in C with example.
- d) Write a program to declare structure employee having data member name, street, city. Accept data for three employees and display it.
- e) Explain working of for loop with syntax and example.
- f) Write a program for addition of two 3×3 matrix

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

- a) Write a program to read string from keyboard and find whether it is palindrome or not.
- b) Explain arithmetic and logical operator.
- c) Write a program to find smallest number in 5-element integer array.
- d) Write difference between call by value and call by reference.
- e) Explain meaning of following statement with reference to pointers.

```
int *a, b;  
b = 20;  
*a = b;  
a = &b;
```
- f) Write a syntax of switch case statement and write its example.

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

- a) Write a program to print even number between 1 to 100 numbers.
- b) What is meant by increment and decrement operator ? Explain with example.
- c) What is array ? How element of array can be accessed ?
- d) What is pointer ? Explain one example of integer and character pointer.
- e) Write a program using loop to print

```
*  
* *  
* * *  
* * * *
```
- f) List different categories of function and explain any one.

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

- a) Explain array of structure with example.
 - b) List and explain bitwise operator used in C.
 - c) Define.
 - (i) Function definition
 - (ii) Function body
 - (iii) Function call
 - (iv) Function Prototype
 - d) Write a C program to accept any integer number and display its Hexadecimal and octal format.
 - e) Write a menu driven program for following option.
 - (i) To find entered year is leap year or not
 - (ii) To display sum of digits of input number.
 - f) What is two dimensional array ? How it is declared and initialized ? Give example of it.
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