## 12223

3 Hours / 70 Marks Seat No.

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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.

## Marks

## 1. Attempt any FIVE :

(a) List any four relational operators.
(b) Give the syntax of switch case statement.
(c) State the use of break and continue statement.
(d) Define the term function.
(e) State any two advantages of pointer.
(f) State the use of ' \&' and '*' operators used in/with pointer.
(g) Write any two features of structure.
2. Attempt any THREE :
(a) State the use of \%d and \%f. Also write example with printf statement to show use of mentioned format specifiers.
(b) Compare while and do-while loop (4 points).
(c) Define the term array. Give Syntax to declare an array. Also write two advantages of array.
(d) Differentiate between call by value and call by reference method for passing parameter (4 points).
3. Attempt any THREE :
(a) Describe with suitable example difference between pre-increment and postincrement operators.
(b) Describe declaration and initialization of two-dimensional array with suitable example.
(c) Describe pointer arithmetic with any two operations.
(d) Describe the use of Enumerated data type with example.
4. Attempt any THREE : $3 \times 4=12$
(a) Write an algorithm and draw flowchart to find whether number entered is even or odd.
(b) Write a C program to check the number entered is positive or negative and display message accordingly.
(c) Write a ' C ' program to add two $3 \times 3$ matrices.
(d) Write a ' C ' program using pointer to swap the value of two integer numbers.
(e) Describe with suitable example initializating and accessing structure members using pointer.
5. Attempt any TWO : $2 \times 6=12$
(a) Describe the use of nested if-else statement with syntax and example.
(b) Write a ' C ' program to read string from keyboard and find whether it is palindrome or not.
(c) Write a 'C' program to display Fibbonacci series using recursion.
6. Attempt any TWO :
(a) Write a ' C ' program to accept two strings from user. Display length of both the strings. Also concatenate two strings and display the output.
(b) Write a ' C ' program to accept two numbers. Write a function add( ) to display addition of entered numbers and function mult( ) to display multiplication of entered numbers.
(c) Write a ' C ' program to declare structure 'employee' having data members as empid, empname and empaddress. Accept this data for 5 employees and display it.

