## 11819

## 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.

(5) Preferably, write the answers in sequential order.

Marks

1. Solve any five :
$(5 \times 2=10)$
A) List 4 datatypes used in C.
B) State use of $*$ and \& used in pointers. 2
C) Give syntax of switch case statement. 2
D) State any four control statements. 2
E) Define Array. 2
F) List 2 mathematical functions used in C programming. 2
G) Define structure. 2
2. Solve any three :
A) Distinguish between compiler and interpreter.
B) Explain while loop with syntax and example.
C) Explain the use of the following function with syntax :
i) $\operatorname{Strcmp}()$
ii) $\operatorname{Strlen}()$
D) Write a program to calculate $\mathrm{n}^{\text {th }}$ power of a number using function.
3. Solve any three :
A) Write a program to accept ten numbers in array and arrange them in ascending order. 4
B) Explain use of arrow $(\rightarrow)$ operator with example.
C) Write an algorithm and flowchart to swap the contents of two variables.
D) Write a program to find whether the character entered through keyboard is a vowel or not. 4
4. Solve any three :
A) Explain how to initialize two dimensional array with example. 4
B) Explain recursive function with suitable example. 4
C) State and explain four arithmetic operations perform on pointer. 4
D) Explain conditional operator with example. 4
5. Solve any two :
( $\mathbf{2} \times 6=12$ )
A) Write a program to add two $3 \times 3$ matrices.
B) Write a program to add two numbers using function.
C) Write a program to exchange values of two variables using pointers.
6. Solve any two :
( $\mathbf{2} \times \mathbf{6}=\mathbf{1 2}$ )
A) Write a program to declare a structure student having data members roll_no, name and
agg_marks. Accept data and display this information for one student.
B) Write a program to print table of a given number. $\mathbf{6}$
C) Write a program to concatenate two strings. 6
