



22218

21718

3 Hours / 70 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**.

Marks

1. Attempt **any five** of the following : **10**
 - A) State different data types supported by 'C' language.
 - B) State use of continue statement.
 - C) Give syntax of switch case statement.
 - D) Give syntax of declaring user defined function. Give one example.
 - E) Give the meaning of declaration `int *ptr`.
 - F) Explain initialization of pointer with example.
 - G) Give syntax of declaring and initialization of structure.

2. Attempt **any three** of the following : **12**
 - A) State the use of %d and %f and write the printf statement of 'C' using above mentioned symbols.
 - B) Compare while and do-while loop.
 - C) State the ways of declaration and initialization of string variables.
 - D) Explain recursion functions with example and state its advantages.

3. Attempt **any three** of the following : **12**
 - A) Explain the use of increment and decrement operators. Also give difference between `i++` and `++i` statements with example.
 - B) Declare and initialize the one dimensional integer array with 10 elements.
 - C) Explain the concept of pointer's arithmetic operation with example.
 - D) Explain array of structure with example.

P.T.O.



4. Attempt **any three** of the following : 12
- A) Write a 'C' program to enter basic salary. Calculate gross salary with 5% DA and 15% TA on basic salary. Display calculated gross salary.
 - B) Write a 'C' program to find whether the given number is prime or non prime.
 - C) Define array and explain how elements of array can be accessed.
 - D) Write a 'C' program using pointer to swap the value of two integer numbers.
 - E) Write a 'C' program to declare a structure 'student' with members as Roll no., name and marks. Accept and display data for one instance.
5. Attempt **any two** of the following : 12
- A) Explain else-if ladder with syntax and its execution with example. Also draw flow chart for else-if ladder.
 - B) Write the program to accept 10 (ten) numbers from user using array, search and print the location of a given number.
 - C) Write a 'C' program to print factorial of number n
(i.e. $n! = n \times (n - 1) \times (n - 2) \times \dots$) using recursion function.
6. Attempt **any two** of the following : 12
- A) Write a 'C' program to copy one string into another without using strcpy function.
 - B) Write a 'C' program to find sum of natural number entered by user.
 - C) Declare a structure circle containing data members as radius, area, perimeter. Accept radius for one variable from user and find out perimeter and area.
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