

22218

22232

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.

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| <b>1. Attempt any FIVE of the following :</b>                                    | <b>10</b>    |
| (a) Draw the structure of a 'C' program.   | 2            |
| (b) Define identifiers with example.   | 2            |
| (c) State any four decision making statement.                                    | 2            |
| (d) Explain the effect of following statement <code>int a, * b = &amp; a;</code> | 2            |
| (e) Explain '&' operator used in pointers.                                       | 2            |
| (f) Declare a structure student with element roll_No and name.                   | 2            |
| (g) How to declare structure within structure ?                                  | 2            |
| <b>2. Attempt any THREE of the following :</b>                                   | <b>12</b>    |
| (a) State various data type along with their memory sizes.                       | 4            |
| (b) Write a 'C' program to convert accepted string in upper and lower case.      | 4            |
| (c) Differentiate between call by value and call by reference. (any 4 points)    | 4            |
| (d) Explain concept of pointer to a pointer.                                     | 4            |



- 3. Attempt any THREE of the following : 12**
- (a) Explain the terms Assembler, Linker, Compiler and Interpreter. 4
  - (b) Explain switch statement with flow chart. 4
  - (c) List the categories of functions and explain any one with suitable example. 4
  - (d) With suitable example list different pointer arithmetic operations. 4
- 4. Attempt any THREE of the following : 12**
- (a) Explain Hexadecimal and octal data type with example. 4
  - (b) How the size of an array is declared ? Explain with suitable example. 4
  - (c) Explain use of pointer in array. 4
  - (d) Explain type def keyword in 'C' with example. 4
- 5. Attempt any TWO of the following : 12**
- (a) Write a program to find largest of three numbers using nested if else. 6
  - (b) Explain initialization and declaration of 1-D and 2D array syntax with example. 6
  - (c) Define scope of variable with suitable 'C' program. 6
- 6. Attempt any TWO of the following : 12**
- (a) Write a program to find whether the entered number is prime or not. 6
  - (b) Write a program to add two matrices of size  $3 \times 3$ . 6
  - (c) Explain enum keyword in 'C' with suitable 'C' program code. 6
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