P131/CMP502/EE/20230113

Time : 3 Hours   **Marks : 80**

Instructions :

1. All Questions are Compulsory.
2. Each Sub-question carry 5 marks.
3. Each Sub-question should be answered between 75 to 100 words. Write every questions answer on separate page.
4. Question paper of 80 Marks, it will be converted in to your programme structure marks.

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1. Solve any **four** sub-questions.

   a) Explain characteristics of computers.   5

   b) Give important features of C language.   5

   c) Define algorithm. Explain its characteristics.   5

   d) Explain while and do-while loop with suitable example.   5

   e) What will be the output of following code: 5

   ```
   Main ( )
       {
               Int a = 300, b, c;
               If (a>=400)
               B=300;
               C=200;
       Printf("\n % d %d", b, c);
       }
   ```

2. Solve any **four** sub-questions.

   a) Explain basic structure of a C program.   5

   b) What is bottom-up programming method?   5

   c) Define array. Explain 1D and 2D array with example.   5

   d) Define functions. Explain call-by reference functions.   5

   e) Define Flowchart. Draw and explain symbols used in flowchart.   5

3. Solve any **four** sub-questions.

   a) Explain switch case statement. 5

   b) Explain different types of computers. 5

   c) Explain bitwise operators in C. 5

   d) Explain Printf( ) and Scanf( ) statements with suitable example. 5

   e) Write a note on 'if' and 'if-else' statements with suitable example. 5

4. Solve any **four** sub-questions.

   a) Define string. Give example of in-built string functions. 5

   b) Explain Increment and Decrement operators in C language. 5

   c) Define operator. List various types of operators used in 'C' language. 5

   d) Explain difference between structure and union. 5

   e) Define pointer. Explain its use. 5