

17093(N)

**B. Tech 3rd Semester Examination**

**Object Oriented Programming Using C++ (CBS)**

**CS-302**

**Time : 3 Hours**

**Max. Marks : 60**

*The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.*

**Note :** Candidates are required to attempt five questions in all selecting one question from each of the sections A, B, C & D below and all the subparts of the questions in Section E.

**SECTION - A**

1. Explain various Input and Output statements in C++ using appropriate examples. (10)
2. Explain the following concepts:
  - (i) Static Objects.
  - (ii) Empty Classes.
  - (iii) Access Specifiers.
  - (iv) Container Classes. (10)

**SECTION - B**

3. (a) What is Function Overloading? Explain by giving examples. (5)  
(b) Which operators cannot be overloaded? (5)
4. Write note on Multiple Inheritance in C++. (10)

**SECTION - C**

5. Write note on Polymorphism. (10)
6. Write note on Dynamic Memory Management in C++. (10)

**SECTION - D**

7. Explain the error handling during file operation in C++. (10)
8. (a) What is the significance of catch()? What do you understand by rethrowing of exceptions? (5)  
(b) Explain function templates. (5)

**SECTION - E**

9. (a) What do you mean by Stream?  
(b) What do you mean by parameterized constructors?  
(c) What do you mean by Class initialization in Inheritance?  
(d) What do you mean by Virtual Base Class?  
(e) Explain Copy Constructor. (5×4=20)