

Roll No. ....

**3224**

**B. Tech. 5th Semester (ECE)  
(Open Elective-I)  
Examination – March, 2021**

**OBJECT ORIENTED PROGRAMMING WITH C++**

Paper : OEC-ECE- 317-G

Time : Three hours ] [ Maximum Marks : 75

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

**Note :** Attempt *five* questions in all, selecting *one* question from each Section. Question No. 1 is *compulsory*.

All questions carry equal marks.

1. Write short notes on :  $5 \times 3 = 15$

- (a) Member Function
- (b) Pure Virtual Function
- (c) Early binding Vs Late binding
- (d) Abstract classes
- (e) Preprocessor directives

### SECTION - A

2. What do you mean by object-oriented Paradigm ? How object-oriented programming is different from procedural-programming ? 15
3. (a) Explain concept of objects and classes in C++ with the help of example. 8  
(b) Differentiate between inside the class definition and outside the class definition in C++ with the help of suitable example. 7

### SECTION - B

4. (a) What are different access specifiers available in C++ ? Explain it. 7  
(b) Discuss Abstract classes with suitable example. 8
5. (a) What is constructor ? Explain different type of constructors in C++. 10  
(b) What is significance of making a constructor in a derived class ? 5

### SECTION - C

6. (a) Define inheritance. Explain various types of inheritance with example. 9  
(b) Differentiate between Implicit type conversion and Explicit type conversion in C++. 6

7. (a) What is operator overloading ? Explain the conditions where operator overloading is necessary. 8  
(b) Write a program to overload '+' binary operator using member function. 7

### SECTION - D

8. What do you mean by Exception Handling ? How exceptions are handled in C++ ? Illustrate with example. 15
9. (a) Distinguish between the Virtual functions and Pure Virtual functions. Give suitable examples. 10  
(b) Write short note on Virtual Destructors. 5