3224

B. Tech. 5rd Semester (ECE)

(Open Elective - I)

Examination – December, 2022

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 × 3 = 15
   (a) Empty classes
   (b) Virtual Destructors
   (c) Preprocessor Directives
   (d) Scope Resolution Operator
   (e) Encapsulation

SECTION – A

2. (a) What is object oriented programming ? How is it different from procedural oriented programming ?   8

   (b) Differentiate between structures in C++ with concept of classes in C++.   7

3. (a) What do you mean by Function overloading ? Explain with the help of suitable example.   10

   (b) Explain the concept of reusability in detail.   5

SECTION – B

4. (a) Discuss various access specefiers in C++.   5

   (b) Explain different types of constructors in C++.   10

5. (a) What is friend function ? What are the advantages of using friend function ? Explain with example.   9

   (b) Differentiate between Friend function and member function.   6

SECTION – C

6. (a) What is Inheritance ? Explain various form of Inheritance with example.   10

   (b) Explain concept of 'this' pointer in C++.   5

7. What do you mean by operator overloading ? Discuss various rules in operator overloading. Also write a program in C++ to overload binary operator. 15

SECTION – D

8. What do you mean by virtual function ? What is the need of virtual function write a program in C++ to show functioning of virtual functions. 15

9. (a) What is Exception Handling ? What are the advantages of using Exception Handling mechanism in a program. 10

   (b) Write short note on Pure Virtual Function. 5

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