

Roll No. ....

**24164**

**B. Tech. 4th Semester (CSE)**

**Examination – July, 2021**

**OBJECT ORIENTED PROGRAMMING USING C++**

**Paper : IT-202-F**

*Time : Three hours ]*

*[ Maximum Marks : 100*

*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 : Question No. 1 is compulsory. Attempts four more questions by selecting one question from each Section.*

1. Answer the following questions : 5 × 4 = 20
- (a) Explain friend function with example.
  - (b) Explain 'const' reference argument in function.
  - (c) Explain with example dynamic initialization of variable.
  - (d) Explain file mode with their purpose.
  - (e) Difference main () function in C and C++.

**SECTION – A**

2. What is OOP ? What are major features ? How it is different from procedural language ? 20

3. (a) What are preprocessor directives ? Why they are used ? Explain some preprocessor directives with example. 10
- (b) explain the concept of reusability with example. 10

### SECTION – B

4. What are constructors explain various types of constructors with example ? When the destructor has been called ? Explain with example. 20
5. (a) What is a file ? How many types of files are used ? Write a program to create, read and write in a sequential access file. 10
- (b) What do you mean by library files ? Explain their usage in C++ with examples. 10

### SECTION – C

6. What do you mean by operator overloading ? Overload '+' Operator to concatenate two strings. 20
7. (a) Difference between Virtual functions and Pure virtual functions give example. 10
- (b) Explain polymorphism. How it is achieved at runtime and compile time ? 10

### SECTION – D

8. What do you mean by dynamic constructor ? Write a program to implement dynamic constructor. 20
9. Explain : 20
- (a) Dynamic memory allocation
  - (b) 'this' pointer
  - (c) Exception handling in C++