

Roll No. 180179806

10/5/19

Total Pages : 03

MCA/M-19

10502

OBJECT ORIENTED PROGRAMMING

USING C++

MCA-14-22

Time : Three Hours]

[Maximum Marks : 80

**Note :** Attempt *Five* questions in all. Q. No. 1 is compulsory.  
Attempt *four* more questions selecting *one* question  
from each Unit.

1. Answer the following questions in brief :

- (a) What are manipulators in C++ ? Explain any *three* in C++.
- (b) Explain the rules of automatic type conversions in C++.
- (c) What is Destructor ? Why can't you overload it ?
- (d) Explain catch all exception handler with an example.

4×4

### Unit-I

2. (a) Explain static data member, member selection operators and read only objects with suitable examples.

8

- (b) What are dynamic objects ? How can you create them ? Explain with an example. 8
3. (a) Explain local class, nested class and preprocessor directives and suitable examples. 8
- (b) Explain the purpose of classes in hierarchy of console stream classes. 8

## Unit II

4. Explain the overloading of the following operators with suitable examples :
- (a) Arithmetic \* operator 8
- (b) New and delete operators. 8
5. (a) What is Friend function ? Explain its need with a suitable example. 8
- (b) How can you convert basic type into object types ? Explain with an example. 8

## Unit III

6. (a) How can you cast base class pointer to derived class pointer ? Explain with a suitable example. 8
- (b) What is multilevel inheritance ? Give an example and implement it in C++. 8

7. (a) What is virtual function ? Explain its need with a suitable example. 8
- (b) What is virtual derivation ? Explain with an example. 8

#### Unit IV

8. (a) What is template function ? How can you overload it ? Give an example. 8
- (b) How can you open, close and test for errors while handling files ? 8
9. Write short notes on the following :
- (a) File pointers 8
- (b) Reading and writing random access file. 8