

**MASTER OF COMPUTER APPLICATION
FIRST SEMESTER
OBJECT ORIENTED PROGRAMMING WITH C++
MCA-103**

**SET
B**

[USE OMR FOR OBJECTIVE PART]

Full Marks: 70

Duration: 3 hrs.

(Objective)

Time: 30 min.

Marks: 20

1X20=20

Choose the correct answer from the following:

1. How Exception handling is implemented in the C++ program?
 - a. Using Exception keyword
 - b. Using try-catch block
 - c. Using Exception block
 - d. Using Error handling schedules
2. Pick the correct statement.
 - a. Pure virtual functions and virtual functions are the same
 - b. Both Pure virtual function and virtual function have an implementation in the base class
 - c. Pure virtual function has no implementation in the base class whereas virtual function may have an implementation in the base class
 - d. The base class has no pure virtual function
3. Which operator cannot be overloaded?
 - a. +
 - b. -
 - c. *
 - d. ::
4. If an object is allocated using new operator _____
 - a. It should be deleted using delete operator
 - b. It can't be deleted using delete operator
 - c. It may or may not be deleted using delete operator
 - d. The delete operator is not applicable
5. What is the size of empty class in C++?
 - a. 0
 - b. 1
 - c. 2
 - d. 4
6. Which of the following is the default mode of the opening using the ifstream class?
 - a. ios::in
 - b. ios::out
 - c. ios::app
 - d. ios::trunc
7. Which of the following is called insertion/put to operator?
 - a. <<
 - b. >>
 - c. >
 - d. <

8. What is an exception in C++ program?
- A problem that arises during the execution of a program
 - A problem that arises during compilation
 - Also known as the syntax error
 - Also known as semantic error
9. What happens when objects s1 and s2 are added?
- ```
string s1 = "Hello";
string s2 = "World";
string s3 = (s1+s2).substr(5);
```
- Error because s1+s2 will result into
- string and no string has substr() function
  - Segmentation fault as two string cannot be added in C++
  - The statements runs perfectly
  - Run-time error
10. Which of these statement is incorrect?
- Every class must contain a main() method
  - Applets do not require a main() method at all
  - There can be only one main() method in a program
  - main() method must be made public
11. Pick out the correct statement.
- A derived class's constructor cannot explicitly invokes its base class's constructor
  - A derived class's destructor cannot invoke its base class's destructor
  - A derived class's destructor can invoke its base class's destructor
  - A derived class's destructor can invoke its base & derived class's destructor
12. What is the output of below program?
- ```
int main()
{
    int a = 10;
    cout<<a++;
    return 0;
}
```
- 10
 - 11
 - 12
 - Not Defined
13. Explanation: Friend function is not a constructor whereas others are a type of constructor used for object initialization. Which of the following is correct?
- Base class pointer object cannot point to a derived class object
 - Derived class pointer object cannot point to a base class object
 - A derived class cannot have pointer objects
 - A base class cannot have pointer objects
14. What is the syntax of overloading operator + for class A?
- A operator+(argument_list){}
 - A operator+[](argument_list){}

(Descriptive)

Time : 2 hrs. 30 min.

Marks : 50

[Answer question no.1 & any four (4) from the rest]

1. Write about the features of Object Oriented Programming. 10
2. What is the role of operator overloading in C++? Write a C++ program add two distances (km: mtr) numbers using operator overloading. 2+8=10
3. What is inheritance? Explain the need of inheritance with suitable examples. What is difference among the access specifiers private, protected and public? 2+5+3=10
4. What is polymorphism? Explain it with categories. Show the use of virtual function with example. Define abstract class. Explain use of new operator in C++. 4+4+2=10
5. What is constructor and destructor? Write the characteristics of constructor and destructor. Write about the friend function. 3+5+2=10
6. Define stream. How can we read user defined values from standard input devices? Explain any one method with example 3+3+4=10
7. a. Explain base class & derived class. 3+2+5=10
b. What is return object? Write a program to add two complex numbers and return result with nameless object.
8. Write short notes on any four 4×2.5=10
 - a. Static Variable
 - b. Template in C++
 - c. User defined functions
 - d. Virtual Base class
 - e. Different types of Inheritance

= = *** = =