(PART-B : Descriptive)

Time : 2 hrs. 40 min.   Marks : 50

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

1. What is OOP's? What are the features of object oriented programming? Write a program that accepts two numbers from the user and swaps the two numbers without using a temporary variable.   5+5=10

2. a. Write a program that accepts a 3 x 3 matrix from the user and finds the transpose of it.   6+4=10

    b. Explain various types of operators available in C++ with examples.

3. What is a friend function? What is object and class in OOP's? Explain with a program.   2+8 =10

4. a. What is constructor? What are the characteristics of a constructor?   2+4+4 =10

    b. Explain function overloading with a program.

5. What are the types of inheritance? Explain multilevel inheritance with example.   4+6=10

6. Explain the concept of virtual function. Discuss the role of polymorphism in OOP's.   5+5 =10

7. What is ofstream, ifstream and fstream? Write one program to write and read from a file.   6+4=10

8. What is exception? Explain the exception handling mechanism with diagram.   2+8=10

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MASTER of COMPUTER APPLICATION
SECOND SEMESTER
OBJECT ORIENTED PROGRAMMING WITH C++
MCA - 204

(Use Separate Answer Scripts for Objective & Descriptive)

Duration : 3 hrs.   Full Marks : 70

(PART-A : Objective)

Time : 20 min.   Marks : 20

Choose the correct answer from the following: *1×20=20*

1. Constructors have _____ return type.
   a. void   b. char
   c. int   d. no

2. Which of the following operators cannot be overloaded.
   a. .(Dot operator)   b. ? : (ternary operator)
   c. : : (Scope Resolution operator) d. All of the above

3. Which of the following is not a feature of object-oriented programming.
   a. Data Encapsulation   b. Inheritance
   c. Operator Overloading   d. Data Structure

4. When the derived class has more than one parent, it is known as _____ .
   a. Multiple Inheritance   b. Single Inheritance
   c. Multilevel Inheritance   d. None of the above.

5. Which of the following is not a type of constructor?
   a. copy constructor   b. friend constructor
   c. default constructor   d. parameterized constructor

6. Which of the following term is used for a function defined inside a class?
   a. Member variable   b. Member function
   c. Class variable   d. Class function

7. Which of the following statement is correct?
   a. A constructor is called at the time of declaration of an object.
   b. A constructor is called at the time of use of an object.
   c. A constructor is called at the time of declaration of a class.
   d. A constructor is called at the time of use of a class.

8. Which of the following ways are legal to access a class data member x using this pointer?
   a. this→x
   b. this.x
   c. *this.x
   d. None of the above.

9. Which inheritance type is used in the class given below?
   class A: public x, public y
   { };
   a. Multiple Inheritance
   b. Single Inheritance
   c. Multilevel Inheritance
   d. None of the above.

10. Which of the following is an invalid visibility label while inheriting a class?
    a. public
    b. private
    c. protected
    d. friend

11. Which of the following access specifier is used as a default in a class definition?
    a. protected
    b. public
    c. private
    d. friend

12. Which of the following statement is correct?
    a. class is an instance of object
    b. object is an instance of class
    c. class is an instance of data type
    d. None of the above.

13. Which of the following operators allow to define the member functions of a class outside the class?
    a. : :
    b. ?
    c. : ?
    d. %

14. Which of the following correctly declares an array?
    a. int array[10];
    b. int array;
    c. array {10};
    d. array a[10];

15. Which of the following is the correct operator to compare two variables?
    a. : =
    b. =
    c. equal
    d. = =

16. Overloaded functions are
    a. Very long function that can hardly run
    b. One function containing another one or more functions inside it
    c. Two or more functions with same name but different number of parameters or type.
    d. None of the above.

17. Identify the correct statement regarding scope of variables
    a. Global variables are declared in a separate file and accessible from any program.
    b. Local variables are declared inside a function and accessible within the function only.
    c. Global variables are declare inside a function and accessible from anywhere in program.
    d. None of the above.

18. Which of the following is output statement in c++.
    a. print
    b. write
    c. cout
    d. cin

19. To increase the value of c by one which of the following statement is wrong?
    a. c++
    b. c=c+1
    c. c+1=>c
    d. c+=1

20. Which is not a loop structure?
    a. for
    b. do while
    c. while
    d. repeat until