13. (a) Write the rules for overloading operators.

Or

(b) Explain unary operators in brief.

14. (a) Describe pointers to objects.

Or

(b) Write notes on this pointer.

15. (a) Explain file pointers and their manipulation.

Or

(b) Explain the different classes of file stream operations.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Discuss function prototyping with an example.

17. Illustrate the working of constructors and destructors with an example.

18. Explain with an example multiple base class inheritance.

19. Discuss on managing output with manipulators.

20. Describe in detail the different file opening modes.

A2-2351/SCSJC21

APRIL 2022

OBJECT ORIENTED PROGRAMMING WITH C++

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL the questions.

Choose the correct answer :

1. Which of the following permits function overloading?

(a) type

(b) number of arguments

(c) type and number of arguments

(d) number of objects

2. _____ is supported by function overloading and default arguments features.

(a) Inheritance (b) Polymorphism

(c) Encapsulation (d) Compilation

3. Dynamic memory allocation is done using _____ operator.

(a) calloc() (b) malloc()

(c) allocate (d) New

4. Syntax of copy constructor _____.

(a) classname (classname &obj){/*constructor definition*/}

(b) classname (cont classname obj) { /*constructor definition*/ }

(c) classname (cont classname &obj){/*constructor definition*/ }

(d) classname (cont &obj) {/*constructor deflnition*/ }

5. _____ inheritance may lead to duplication of inherited members from a 'grandparent' base class.

(a) multipath (b) multiple

(c) multilevel (d) hierarchical

6. _____ overloaded by means of a member function, take no explicit arguments and return no explicit values.

(a) Unary operators

(b) Binary operators

(c) Arithmetic operators

(d) Function operator

7. The this pointer is accessible _____.

(a) Within all the member functions of the class

(b) Only within functions returning void

(c) Only within non-static functions

(d) Within the member functions with zero arguments

8. _____ are also known as generic pointers, which refer to variables of any type.

(a) void pointers (b) null pointers

(c) this pointer (d) base pointer

9. Which function is used to reposition the file pointer?

(a) moveg() (b) seekg()

(c) changep() (d) go_p()

10. Operator used to insert the data into file is _____.

(a) >> (b) <<

(c) < (d) >

PART B — (5 × 7 = 35 marks)

Answer ALL questions, choosing either (a) or (b)

11. (a) Distinguish between the following terms:

(i) Object and classes

(ii) Data abstraction and data encapsulation.

Or

(b) Differentiate manipulators and ios functions?

12. (a) What are constructors? How are they different from member functions?

Or

(b) Define friend function. Write the merits and demerits of using the friend function.