CS304-Object Oriented Program
Solved MCQS for Final terms papers
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ALL answers are verified if found any mistake then Correct ACCORDINGLY

1. Function func1of class1 is_____ in class2.
   - ► Public
   - ► Protected
   - ► Private
   - ► None of the given
2. The default inheritance mode is,
   a) Public inheritance
   b) Protected inheritance
   c) Private inheritance
   d) None of the given
3. A template provides a convenient way to make a family of
   a) Variables and data members
   b) Functions and classes
   c) Classes and exceptions
   d) Programs and algorithms
4. Then int member i of base class is accessible in class,
   a) derived 1 only
   b) derived 2 only
   c) both derived 1 derived 2
   d) none of the given options
5. In case of public inheritance, protected members of base class will be_____in derived class?
   a) Private
   b) Public
   c) Protected
   d) hidden
6. By default assignment operator (=) performs,
   a) Shallow copy
   b) Deep copy
   c) Both of these
   d) None of these
7. In protected inheritance the public members of base class become _____in derived class.
   a) Public
   b) Private
   c) Protected
   d) None of the given
8. We can access public members of the class from outsides the class using_____operator with its object pointer
   a) ->

b) .
c) &
d) @

9. Compiler can automatically generates the following constructor/s for a class,
   a) Default constructor
   b) Copy constructor
   c) Both of these
   d) None of these
10. Friend's functions of class are _____members of that class.
   a) Public
   b) Private
   c) Protected
   d) None of the given
11. Methodologies to the development of reusable software relate to_____.
   a) Structure programming
   b) Procedural programming
   c) Generic programming
   d) None of the given
12. Function overriding is done in context of,
   a) Single class
   b) Single derived class
   c) Single base class
   d) Derived and base classes
13. Which of the following is not type of inheritance in c++?
   a) Public
   b) Protected
   c) Restricted
   d) Private
14. If there is a pointer ,p, to objects of a base class and it contains the address of an object of a derived class and both classes contain a virtual member function, ding(),then the statement p->ding(); will cause the version of ding in the_____class to be executed.
   a) Base
   b) Derived
   c) Virtual
   d) Implemented
15. Target class of a____function call is determined t run time.
   a) Instance
   b) Virtual
   c) Operator
   d) None of the given
16. In c++ dynamic binding and polymorphism will be achieved when the member function will be_____

a) Private
b) Public
c) Virtual
d) Inline

17. To make a pure virtual, we need to give____after() of this function.
a) =0;
b) =1;
c) Null;
d) None of the given

18. If we have not given any constructor for the class,compiler generates which of the following constructors?
a) Emplicit Default Constructor
b) Implicit Default Constructor
c) Emplicit Parameterized Constructor
d) Implicit Parameterized Constructor

19. In c++ by default access of classes is____.
a) Private
b) Protected
c) Public
d) None of the given

20. In public inheritance the public members of base class become_____in derived class
a) Private
b) Protected
c) Public
d) None of the given

21. A class hierarchy
a) Shows the same relationships as a organization chart
b) Describe "has a "relationship.
c) Describe "is a kind of" relationship.
d) Shows the same relationships as a family tree.

22. In private Inheritance the public members of the base class become_____in derived class
a) Public
b) private
c) Protected
d) None of the given option

23. In the line No.2, which constructor of student class will be
a) Default constructor of student class
b) Copy constructor of student class
c) Both Default and Copy constructor of student class
d) No constructor will be called

24. Which of the following is Not casting operator in c++ standard?
a) Static-cast

b) Var-cast
c) Dynamic-cast
d) Reinterpret-cast

25. Which of the following type of inheritance is used to model "Implemented in terms of" relationship?
a) Public
b) Private
c) Protected
d) Confidential

26. When we want to implement one class in terms of another class then we use,a) Public inheritance
b) Protected inheritance
c) Private inheritance
d) None of these options

27. Public inheritance represents;
a) "IS A "relationship
b) "Has A" relationship
c) "IS Special kind of" relationship
d) None of these option

28. Suppose we have defined derived class copy constructor but have not defined base class copy constructor then compiler will,
a) Use base class default constructor
b) Generate base class copy constructor itself
c) Use base class assignment operator
d) Nine of these option is correct

29. Child class can call constructor of its,a) Direct base class
b) Indirect base class
c) Both direct and indirect base classes
d) None of these

30. We can have_____type of member functions in a class.
a) Public
b) Private
c) Protected
d) All of these options

31. Compiler generated copy constructor performs_____
a) Shallow copy
b) Deep copy
c) Both Shallow and Deep copy
d) None of these options

32. In c++ generic programming is done using____
a) Procedures

b) Packages
c) Templates
d) None of the given

33. Target class of a____function call is determined at run time.
a) Instance
b) Virtual
c) Operator
d) None of the given

34. Suppose person is a user defined class.In statement "Person*pPtr", static type of pPtr is ----.
a) pPtr
b) pointer
c) person
d) None of the given

35. Which statement is true for concrete class?
a) It cannot be inherit from an abstract class
b) It can be instantiated
c) It cannot be instantiated
d) None of given

36. In c++, compiler can generate which of the following operators 'code,
a) ==
b) =
c) &
d) &&

37. In specialization we can,
a) Replace child class with its base
class b) Replace base class with its child
class
c) Replace both child and base classesinterchangeably
d) None of the given option

38. In private inheritance derived class pointer can be assigned to base class pointer in,
a) Main function
b) In derived class member and friend class function
c) In base class member and friend functions
d) None of the given option

39. When we access private members of the class from outside the class using_____operator with its object pointer
a. ->
b. .
c. &
d. None of above

40. Which of the following access specifier ensure that base class member is accessible in derived class and Not outside of this class
a. Public

b. Private
c. Protected
d. All of above

41. Static casting is
a. C++ way of calling base class function from derived class
b. C way of calling base class function from derived class
c. Both of these
d. None of these

42. Suppose both derive and base classes have compilers generated copy constructors then derived class copy construct is
a. Compiler generated default constructor
b. Compiler generated copy constructor
c. Both of these options are correct
d. None of these operators are correct

43. In case of protected inheritance, public members of the base class will be_____in derived class
a. Private
b. Public
c. Protected
d. Hidden

44. Methodologies to the development of reusable software related to_____
a. Structured programming
b. Procedural programming
c. Generic programming
d. None of the given

45. A child class can call constructor of the parent call through
a. Its constructor initialization list
b. Its constructor body
c. Both from its constructor initialization list or body
d. Cannot call the constructor of its parent class

46. In case of dynamic memory allocation in or class we should use
a. Default assignment operator
b. User defined assignment operator
c. Default copy constructor
d. None of these

47. Consider the code below.

```
Class class1 {
Protected:
Int I;
};
Class class2: private calls 1{
};
```

a) Public

b) Protected
c) Private
d) None of the given options

48. Consider the following two lines of code written for class student
    1. Student sobj1;
    2. Student sobj2(sobj1)

In line 2 which constructor of student class will be called?

a) Default constructor of student class
b) Copy constructor of student class
c) Both default and copy constructor of student class
d) No constructor will be called

49. Which of the following is /are casting operator(s) inc++?
    a. Static_cast
    b. Const_cast
    c. Dynamic_cast
    d. All of the given options

50. In case of private inheritance, private members of base class will be_____in derived class?
    a. Private
    b. Public
    c. Protected
    d. Hidden

51. Consider the code below

```
class class1{
Private:
Void func1();
};
Class class2 : public class1{
};
```

Function func1 of class 1 is_____in class2.
    a. Public
    b. Protected
    c. Private
    d. None of the given options

52. We can call base class assignment operator in derived class user defined assignment operator
    a. Implicitly
    b. Explicitly
    c. Using both of these options
    d. Using none of these options

53. A function call is resolved at run time in

a. Non virtual members functionb. Virtual member function

c. Both none-virtual and virtual member function

d. None of given

54. If the user does not specify the type if inheritance, then the default type of inheritance is _____

a. Public inheritance b. Private inheritance

c. Protected inheritance

d. None of given

55. Consider the code belowclass class1{

public:

Void func1();

};

Class class2: protected class1{

};

Function func1 of class 1 is_____in class2.

a. Public

b. Protected

c. Private

d. None of the given options

56. Which of the following causes run time binding?

► Declaring object of abstract class
► Declaring pointer of abstract class
► Declaring overridden methods as non-virtual ► (Page 226)
None of the given

57. Which of the following is the best approach if it is required to have more than one functions having exactly same functionality and implemented on different data types?

► Templates (Page 256)
► Overloading
► Data hiding
► Encapsulation

58. A copy constructor is invoked when

► a function do not returns by value.
► an argument is passed by value. (Page 78)
► a function returns by reference.
► an argument is passed by reference.

59. Like template functions, a class template may not handle all the types successfully.

► True (Page 258)
► False

60. A class template may inherit from another class template.

► True (Page 288)
► False

61. By default the vector data items are initialized to ____
► 0 google
► 0.0
► 1
► null

62. In Private ---------- only member functions and friend classes or functions of a derived class can convert pointer or reference of derived object to that of parent object

►specialization
► inheritance (Page 216)
► abstraction
► composition

63. Which of the following is/are advantage[s] of generic programming?
► Reusability
► Writability
► Maintainability
► All of given (Page 256)

64. Template functions use _____ than ordinary functions.

► Greater Memory
► Lesser Memory
► Equal Memory
► None of the given options

65. Non Template Friend functions of a class are friends of _____instance/s of that class.

► All google
► One specific
► All instances of one date type
► None of the given options

66. A pointer to a base class can point to objects of a derived class.

► True google
► False

`

67. A template argument is preceded by the keyword _____.
- ► vector
- ► class
- ► template
- ► type*

68. Which one of the following terms must relate to polymorphism?
- ► Static allocation
- ► Static typing
- ► Dynamic binding (Page 239)
- ► Dynamic allocation

69. Multiple inheritance can be of type

- ► Public
- ► Private
- ► Protected
- ► All of the given

70. Assume a class Derv that is privately derived from class Base. An object of class Derv located in main() can access
- ► public members of Derv
- ► protected members of Derv.
- ► private members of Derv.
- ► protected members of Base.

71. A function call is resolved at run-time in_____
- ► non-virtual member function.
- ► virtual member function. (Page 239)
- ► Both non-virtual member and virtual member function.
- ► None of given

72. Two important STL associative containers are _____ and _____.

- ► set,map
- ► sequence,mapping
- ► setmet,multipule
- ► sit,mat

73. An abstract class is useful when,

- ► We do not derive any class from it.
- ► There are multiple paths from one derived class to another.
- ► We do not want to instantiate its object
- ► You want to defer the declaration of the class.

74. Suppose you create an uninitialized vector as follows:

vector<int> evec;
After adding the statment,
evec.push_back(21);
what will happen?

► The following statement will add an element to the start (the back) of evec and will initialize it with the value 21.

► The following statement will add an element to the center of evec and will reinitialize it with the value
21.

► The following statement will delete an element to the end (the back) of evec and will reinitialize it with the value 21.

► The following statement will add an element to the end (the back) of evec and initialize it with the value 21.

75. Default constructor is such constructor which either has no ---------or if it has some parameters these have -----
--- values

► Parameter, temporary
► Null, Parameter
► Parameter, default (Page 75)
► non of the given

76. Classes like TwoDimensionalShape and ThreeDimensionalShape would normally be concrete, while classes like Sphere and Cube would normally be abstract.

► True
► False

77. In order to define a class template, the first line of definition must be:

► template <typename T> (Page 257)
► typename <template T>
► Template Class <ClassName>
► Class <Template T>

78. A function template can not be overloaded by another function template.

► True

`

► False

79. Identify the correct way of declaring an object of user defined template class A for char type members?

► A< char > obj;
► <char>A obj;
► A obj<char>;
► Obj <char> A;

80. The user must define the operation of the copy constructor.

► True
► False

81. The find() algorithm

► finds matching sequences of elements in two containers.
► finds a container that matches a specified container.
► takes iterators as its first two arguments. (Object-Oriented Programming in C++)
► takes container elements as its first two arguments.

82. Compiler performs _____ type checking to diagnose type errors,

► Static (Page 261)
► Dynamic
► Bound
► Unbound

83. Vectors contain contiguous elements stored as a[an] ___.

► variable
► array (Page 306)
► function
► datatype

84. In a de-queue, (chose the best option)

► data can be quickly inserted or deleted at any arbitrary location.
► data can be inserted or deleted at any arbitrary location, but the process is relatively slow.
► data can not be quickly inserted or deleted at either end.
► data can be inserted or deleted at either end, but the process is relatively slow.

85. Algorithms can only be implemented using STL containers.

► True
► False(Object-Oriented Programming in C++)

86. What is a class?

► A class is a section of computer memory containing objects.
► A class is a section of the hard disk reserved for object oriented programs
► A class is the part of an object that contains the variables.
► A class is a description of a kind of object. Click here for detail

87. Inheritance is a way to

► organize data.
► pass arguments to objects of classes.
► add features to existing classes without rewriting them. (Page 27)
► improve data-hiding and encapsulation.

88. We can use "this" pointer in the constructor in the body and even in the initialization list of any class if we are careful,
► True
► False

89. _____ and _____ methods may not be declared abstract.

► private,staticClick here for detail
► private,public
► static,public
► none of given

90. ---------- members are somewhere between public and private members. They are used in inheritance

► protected
► public
► private
► global (Page 187)

91. Which of these are examples of error handling techniques?

- ► Abnormal Termination
- ► Graceful Termination
- ► Return the illegal
- ► all of the given (Page 329)

92. ---------- follow try block to catch the object thrown

► catch block (Page 333)
- ► throw block
- ► main block
- ► non of the given

93. Graphical representation of the classes and objects is called object model it shows -------

- ► Class Name only
- ► Class Name and attributes
- ► Relationships of the objects and classes
- ► all of the given

94. Destructor can be overloaded

- ► True

- ► False(Page 92)

95. Which of the following is the best approach to implement generic algorithms with minimum number of coding lines?

- ► Templates (Page 256)
- ► Overloading
- ► Overriding
- ► Friend function/class

96. Each try block can have _____ no. of catch blocks.

- ► 1
- ► 2
- ► 3
- ► As many as necessary.

97. class DocElement

```
{
public:
      virtual void Print() { cout << "Generic element"; }
};
class Heading : public DocElement
{
public:
      void Print() { cout << "Heading element"; }
};
class Paragraph : public DocElement
{
public:
      void Print() { cout << "Paragraph element"; }
};
void main()
{
      DocElement * p = new Paragraph();
```

```
    p->Print();
}
```

98. When you run this program, it will print out a single line to the console output.

What will be in that line?

Select one correct answer from the following list:

► Generic element ►
Heading element
► Paragraph element
► Nothing will be printed.

99. Suppose we have two derived classes from a single class, can we write a method with same name in both these derived classes? Choose the best option.
► No
► Only if the two classes have the same name (Page 204)
► Only if the main program does not declare both kinds
► Yes

100. When a virtual function is called by referencing a specific object by name and using the dot member selection operator (e.g., squareObject.draw()), the reference is resolved at compile time.

► True
► False

101. Considering the resolution order in which Considering the resolution order in which compiler search for functions in a program; the first priority is given to; the first priority is given to,

► general template
► partial specialization
► complete specialization
► ordinary function (Page 287)

102. One purpose of an iterator in the STL is to connect algorithms and containers.

►True
► False

103. In _____, a base class can be replaced by its derived class,

► Sub-typing (Page 31)
► Super-typing
► Multiple-typing
► Restricted-typing

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104. one this pointer does not point to current object of any class,
- ► True
- ► False

105. Which of the following operator(s) take(s) one or no argument if overloaded?

- ► ++(Page 162)
- ► -
- ► +
- ► All of the given

106. Which of the following operators can not be overloaded?

- ► Scope resolution operator (::) (Page 141)
- ► Insertion operator (<<)
- ► Extraction operator (>>)
- ► The relation operator (>)

107. Which of these are examples of error handling techniques ?
- ► Abnormal Termination
- ► Graceful Termination
- ► Return the illegal
- ► all of the given (Page 329)

108. _____ "is a" relationship

- ► Inheritance (Page 25)

- ► Polymarphism
- ► abstraction
- ► encapsulation

109. Virtual functions allow you to

- ► create an array of type pointer-to-base class that can hold pointers to derived classes.
- ► create functions that can never be accessed.
- ► group objects of different classes so they can all be accessed by the same function code.
- ► use the same function call to execute member functions of objects from different classes

110. The copy() algorithm returns an iterator to

- ► the last element copied from.
- ► the last element copied to.
- ► the element one past the last element copied from.
- ► the element one past the last element copied to.

111. If you define a vector v with the default constructor, and define another vector w with a one-argument constructor to a size of 11, and insert 3 elements into each of these vectors with push_back(), then the size() member function will return _____ for v and _____ for w.

- ► 11 for v and 3 for w.
- ► 0 for v and 0 for w.
- ► 0 for v and 3 for w.
- ► 3 for v and 11 for w.

112. Which is not the Advantage of inheritance?

- ► providing class growth through natural selection. (Object-Oriented Programming in C++)
- ► facilitating class libraries.
- ► avoiding the rewriting of code.
- ► providing a useful conceptual framework.

113. Which type of inheritance is being represented by the following statement, class X : public A, public B { ... ... };

- ► Single inheritance
- ► Multiple inheritance (Page 41)

- ► Double inheritance
- ► None of the given options

114. When we write a class template the first line must be:

- ► template < class *class_name*>
- ► template < class *data_type*>
- ► template < class T > (Page 257)

115. Function templates should be used where code and behavior must be identical.

- ► True (Page 262)
- ► False

116. The specialization pattern <T*> after the name says that this specialization is to be used for every,

- ► data type
- ► meta type
- ► virtual type
- ► pointer type (Page 286)

117. A range is often supplied to an algorithm by two _____ values.

- ► italic
- ► iteration (Object-Oriented Programming in C++)
- ► iterator
- ► None of given

118. Which of the following is an integral part of an object?

- ► State
- ► Behavior
- ► Unique identity
- ► All of the given (Page 12)

119. Consider the following statement

Cupboard has books
What is the relationship between Cupboard and books?

- ► Composition
- ► Aggregation
- ► Inheritance
- ► None of the given options

120. Which sentence clearly defines an object?

- ► one instance of a class. (Page 23)

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- another word for a class.
- a class with static methods.
- a method that accesses class attributes.

121._____, which means if A declares B as its friend it does NOT mean that A can access private
data of B. It only means that B can access all data of A.

- Friendship is one way only
- Friendship is two way only
- NO Friendship between classes
- Any kind of friendship

122.The statement objA=objB; will cause a compiler error if the objects are of different classes.

- True
- False

123.Consider the call given below of an overloaded
operator "+", *Rational_number_1 + Rational_number_2*
Where Rational_number_1 and Rational_number_2 are the two objects of Rational_number class (a user defined class). Identify which of the above two objects will be passed as an argument to the overloaded operator function?

- Rational_number_1
- Rational_number_2
- Both Rational_number_1 & Rational_number_2
- any of the two objects, randomly

124.If a class D has been derived using protected inheritance from class B (If B is a protected base and D is derived class) then public and protected members of B -------- accessed by member functions and friends of class D and classes derived from D

- can be
- cannot be
- does restirct to be
- not given

The type that is used to declare a reference or pointer is called its_____

► abstract type
► reference type
► ► static type
► defaulttype

125. How the information hidden within an object can be accessed?
► Through its interface
► Through its private data members
► Through its private member functions
► Through both public and private members

126. The sub-object's life is not dependant on the life of master class in _____.
► Separation
► Composition

► None of the given

127. Encapsulation means
Select correct option:
►Extending the behaviour of class in another class
►Data and behaviour are tightly coupled within an entity (Page 16)
►One entity takes all the attributes and operations of the other
►Taking out the common features and put those in a separate class

128. An STL container can not be used to,

► hold objects of class employee.
► store elements in a way that makes them quickly accessible.
► compile c++ programs. (Object-Oriented Programming in C++)
► organize the way objects are stored in memory

129. Which of the following may not be an integral part of an object?
► State
► Behavior
► Protected data members (Page 12)
► All of given

130. Public methods of base class can --------- be accessed in its derived class
► directly (Page 179) rep
► inderectly
► simultaniously
► non of the given

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131. What is true about function templates?

► The compiler generates only one copy of the function template
► The compiler generates a copy of function respective to each type of data (Page 256)
► The compiler can only generate copy for the int type data
► None of the given.

132. When the base class and the derived class have a member function with the same name, you must be more specific which function you want to call (using _____).

► scope resolution operator
► dot operator
► null operator
► Operator overloading

133. A template provides a convenient way to make a family of

► variables and data members
► functions and classes(Object-Oriented Programming in C++)
► classes and exceptions
► programs and algorithms

134. A non-virtual member function is defined in a base class and overridden in a derived class; if that function is called through a base-class pointer to a derived class object, the derived-class version is used.

► True
► False

135. If there is a pointer p to objects of a base class, and it contains the address of an object of a derived class, and both classes contain a nonvirtual member function, ding(), then the statement p->ding(); will cause the version of ding() in the _____ class to be executed.

► Base (Object-Oriented Programming in C++)
► Derived
► Abstract
► virtual

136. In case of multiple inheritance a derived class inherits,

► Only the public member functions of its base classes
► Only the public data members of its base classes
► Both public data members and member functions of all its base classes
► Data members and member functions of any two base classes

`

137. Which of the following is incorrect line regarding function template?

► template<class T>
► template <typename U>
► Class<template T> (Page 257)
► template < class T, class U>

138. Consider a class named Vehicle, which of the following can be the instance of class Vehicle?

i. Car
ii. Computer
iii. Desk
iv. Ahmed
v. Bicycle
vi. Truck

- 1,4,5
- 2,5,6
- 1,2,3,6
- 1, 5, 6 Conceptual

139. Consider the code below,

```
class Fred {
public:
Fred();
...
};
int main()
{
Fred a[10];
Fred* p = new Fred[10];
...
}
```

Select the best option,

► Fred a[10]; calls the default constructor 09 times Fred* p = new Fred[10]; calls the default constructor 10 times
► Produce an error

► Fred a[10]; calls the default constructor 11 times

Fred* p = new Fred[10]; calls the default constructor 11 times

► Fred a[10]; calls the default constructor 10 times

Fred* p = new Fred[10]; calls the default constructor 10 times

140. When a variable is define as static in a class then all object of this class,

► Have different copies of this variable
► Have same copy of this variable (Page 110)
► Can not access this variable
► None of given

141. Which of the following operators always takes no argument if overloaded?

► /
► -
► +
► ++ (Page 162)

142. It is sometimes useful to specify a class from which no objects will ever be created.

► True(Object-Oriented Programming in C++)
► False

143. When a subclass specifies an alternative definition for an attribute or method of its superclass, it is _____ the definition in the superclass.

► overload
► overriding (Page 34)
► copy riding
► none of given

144. The mechanism of selecting function at run time according to the nature of calling object is called,

► late binding
► static binding
► virtual binding
► None of the given options (Page 227)

145. Dynamic binding means that target function for a call is selected at run time

Which one of the following functions returns the total number of elements in a vector.

► length();
► size(); (Page 318)
► ele();
► veclen();

`

146. The main function of scope resolution operator (::) is,
- ► To define an object
- ► To define a data member
- ► To link the definition of an identifier to its declaration Google
- ► To make a class private

147. When is a constructor called?
- ► Each time the constructor identifier is used in a program statement
- ► During the instantiation of a new object (Object-Oriented Programming in C++)
- ► During the construction of a new class
- ► At the beginning of any program execution

148. Associativity can be changed in operator overloading.

- ► True
- ► False (Page 141)

149. A normal C++ operator that acts in special ways on newly defined data types is said to be

- ► glorified.
- ► encapsulated.
- ► classified.
- ► overloaded.

150. Which operator can not be overloaded?

- ► The relation operator (>=)
- ► Assignment operator (=)
- ► Script operator ([])
- ► Conditional operator (? :) (Page 141)

151. Suppose obj1 and obj2 are two objects of a user defined class A. An + operator is overloaded to add obj1 and obj2 using the function call obj1+obj2.

Identify the correct function prototype against the given call?
- ► A operator + (A &obj);
- ► int + operator(); (Page 143)
- ► int operator (plus) ();
- ► A operator(A &obj3);

`

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152. **Suppose that the Test class does not have an overloaded assignment operator. What happens when an assignment a=b; is given for two Test objects a and b?**

- The automatic assignment operator is used
- **The copy constructor is used**
- Compiler error
- Run-time error

153. **A static member function can be called, even when a class is not _____.**

- Declared
- Define
- **Instantiated**
- Called

154. **Identify which of the following overloaded operator function's declaration is appropriate for the given call?**

Rational_number_1 + 2.325

Where Rational_number_1 is an object of user defined class Rational_number.

- Rational_number operator+(Rational_number & obj);
- Rational_number operator+(double& obj);
- Rational_number operator+(Rational_number &obj, double& num);
- operator+(double& obj);

155. **What problem(s) may occur when we copy objects without using deep copy constructor?**

- Dangling pointer
- Memory Leakage
- **All of the given**
- System crash

156. **_____ provide the facility to access the data member.**

- **accesser function**
- private function
- inline function
- None of the given

157. **Constant objects cannot change their state,**

`

- **True**
- False

158. **The _____ relationship indicates that an object contains other objects.**

- None of given
- **'has-a'**
- 'is-a'
- 'be-

159. **Which one of the following features of OOP is used to derive a class from another?**

- Encapsulation
- Polymorphism
- Data hiding
- **Inheritance**

160. **_____satisfy the condition of polymorphism**

- Carbon
- Diamond
- Coal
- **all of the given**

161. **A generalization-specialization relation between classes are implemented using**

- data hiding
- friend classes
- encapsulation
- **inheritance**

162. **The >= operator can be overloaded.**

- **True**
- False

163. **In order to free the memory occupied by the object, we use ----------**

`

- Constructor
- **Destructor**
- Shallow Copy
- Deep Copy

164. **Which of the following is not an example of multiple inheritances?**

- Mermaid
- **Woman**
- None of the given
- Amphibious Vehicle

165. **Static variable can be initialized more than once.**

- True
- **False**

166. **A generic class showing all the common attributes and a behavior of other classes represents a very important feature in oop called --------**

- **Inheritance**
- Encapsulation
- Polymarphism
- Abstraction

167. The parameters given in temple definition other than those used for mentioningtemplates types are called ____

a. Type Parameters
b. Non Type parameters
c. Default Type Parameters
d. None of the given option

168. Which of the following is the correct way to define a template class X?

e. Class < typename T>class X{}
f. Template class C{}
g. Template < typename T> classX{}
h. Typename<class T > class X{}

169. In resolution order of function template, compiler searches for_____in the end

a. Complete specialization
b. Partial specialization
c. Ordinary function

`

d. Generic template

170. __may inherit from a complete specialization
   a. Partial specialization
   b. Complete specialization
   c. Ordinary class
   d. All of given options

171. Which of the following may inherit form the ordinary class?
   a. Class template
   b. Partial specialization
   c. Complete specialization
   d. All of given option

172. Which of the following is a sequence container?
   a. Map
   b. Vector
   c. Set
   d. multiset

173. Each_____of a template class by default becomes function template
   a. Date member
   b. Member function
   c. Type parameter
   d. Object

174. When we specialize a function template, it is called _____
   a. Function overloading
   b. Function overriding
   c. Function template overloading
   d. Function template overriding

175. Which of the following is NOT an associative container?
   a. Set
   b. Multiset
   c. Map
   d. Group

176. A_____is a pointer which is declared outside the _____
   a. Container, cursor
   b. Cursor, container
   c. Container, class
   d. This, cursor

177. Which of the following are collectively referred to as the first class containers?
   a. Associative containers and containers adapters
   b. Sequence containers and associative containers
   c. Sequence containers and container adapters

`

d. None of the given options

178. _____class is a single class that provides functionality to operate on different type of data
   a. Friend
   b. Template
   c. Ordinary
   d. None of the give options

179. Which of the following can be passed as type argument to template?
   a. Primitive type
   b. User defined types
   c. Both primitive type and user defined types
   d. None of the given options

180. Which of the following is known as Dereference operator in C++?
   a. +b.
   *
   c. &
   d. ::

181. We can change behavior of template using_____
   a. Template parameters
   b. Function parameters
   c. Class Templates
   d. none of the given options

182. Which of the following represents partial specialization?
   a. Template < int, char >
   b. Template < class T, Type t>
   c. Template<class T, Class U, int>
   d. Template< typename T, class W>

183. When we declare template function as friend of any class, then which of the followingspecialization(s) of template function also become friend of the class granting friendship?
   a. Explicit
   b. Implicit
   c. Partial
   d. All of the given options

184. In statement “template <class T, class U, int I = 5>” then non-type parameters is
   a. Class T
   b. Class U
   c. int I
   d. All of the given option

185. Which of the following is the correct syntax for passing two type argument to atemplate?

`

a. template < type T, type U>
b. template < typename T, typename U>
c. template <type T,U>
d. template Typename < T,U >

186. Which of the following represents complete specialization?a. Template < int, char >
b. Template < class T, float>
c. Template<class T, Class U , int>
d. Template< class , class W>

187. Which of the following is/are the key component of standard template library?
a. Containers
b. Iterators
c. Algorithm
d. All of the given option

188. Which of the following statement is true about partial specialization?
a. Function templates cannot have partial specialization
b. Class template cannot have partial specialization
c. Both class templates and function template can have partial specialization.
d. None of the given

189. Which of the following is correct code portion to initialize static data member "value"of int type for class X?
a. Template <class T> X::value =0;
b. Template<class T>int X::value =0;
c. Template<class T> int X < T >::value = 0;
d. Template<class T> X < T >::value =0;

190. When we want to have exactly identical operations on different data type, _____are used
a. Function Template
b. Function Overloading
c. Function Overriding
d. None of the given option

191. In order to define a class template the first line of definition must be:a. Template <typename T>
b. typename < template T>
c. Template class <ClassName>
d. Class <Template T>

192. In case of template specialization, if compiler cannot find required completespecialization then it searches for some _
a. General template
b. Complete template
c. Partial specialization

`

d. None of the given

193. Which of the following is the correct code to instantiate the object of given templatevector class of int type?

```
Template <class T>
class vector
{
};
```

a. Vector obj <int>;
b. Vector obj <> int;
c. Vector <int>obj;
c. Vector int obj;

194. Which of the following types of container is NOT provided by standard TemplateLibrary?
a. Sequence containers
b. Structured containers
c. Associative containers
d. Container adapters

195. A class template _____
a. Facilitates rescue of class
b. Dose not facilitates reuse of class
c. Does not support generic methods
d. Does not support static members

196. Suppose a template class "test" has a static data members, how many copies of thisstatic data member will be created when template class is instantiated by writing following line of C++ code?

```
Test <char>x,y,z
```

a. Zero
b. One Correct
c. Two

197. STL stands for:
a. Stack Template Library
b. Standard Template Library
c. Structured Template Library
d. Secure Template Library

198. Which of the following is not a sequence container?
a. Vector
b. Dequec. Map
d. List

199. Suppose a template class "test" has a static data members, how many copies of thisstatic data member will be created when template class is instantiated by writing following line of C++ code?

`

Test <int>x; Test <char>y;

a. Zero
b. Onec. Two
d. Three

200. Suppose we have a template class "Test" which have a static data member "data"which is initialized with 0. What will be output when following code is written inmain() function for given class?

```
Test<int> a, b;a.data = 5;
b.data = 7; cout<<a.data;
```

a. 0
b. 1~~c. 5~~
d. 7 Correct

201. In resolution order, highest priority is given to_____in template specialization.

a. General template
b. Complete specialization
c. Partial specialization
d. None of the given options

202. Which of the following is a constrained version of some first-class container?

a. Sequence containers
b. Associative containers
c. Container Adapter
d. None of the given options

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