CS304 OBJECT ORIENTED PROGRAM 150+ SOLVED MCQS 2021-2022

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1. The default inheritance mode is,
a) Public inheritance
b) Protected inheritance
c) Private inheritance
d) None of the given

2. 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

3. 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

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

5. By default, assignment operator (=) performs,
a) Shallow copy
b) Deep copy
c) Both of these
d) None of these

6. In protected inheritance the public members of base class become _____in derived class.
a) Public
b) Private
c) Protected
d) None of the given

7. Compiler can automatically generate the following constructor/s for a class,
a) Default constructor
b) Copy constructor
c) Both of these
d) None of these

8. Friend's functions of class are _____members of that class.
a) Public
b) Private
c) Protected
d) None of the given

9. Methodologies to the development of reusable software relate to_____.
a) Structure programming
b) Procedural programming
c) Generic programming
d) None of the given

10. Function overriding is done in context of,
a) Single class
b) Single derived class
c) Single base class
d) Derived and base classes

11. Which of the following is not type of inheritance in c++?

a) Public
b) Protected
c) Restricted
d) Private

12. 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

13. Target class of a__function call is determined t run time.

a) Instance
b) Virtual
c) Operator
d) None of the given

14. To make a pure virtual, we need to give___after() of this function.

a) =0;
b) =1;
c) Null;
d) None of the given

15. 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

16. In c++ by default access of classes is___.

a) Private
b) Protected
c) Public
d) None of the given

17. In public inheritance the public members of base class become____in derived class

a) Private
b) Protected
c) Public
d) None of the given

18. 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.

19. 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

20. 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

21. Which of the following is Not casting operator in c++ standard?

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

22. Which of the following type of inheritance is used to model "Implemented in terms of" relationship?

a) Public
b) Private
c) Protected
d) Confidential

23. 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

24. Public inheritance represents;

a) "IS A "relationship
b) "Has A" relationship
c) "IS Special kind of" relationship
d) None of these option

25. 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 options is correct

26. 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

27. We can have___type of member functions in a class.

a) Public
b) Private
c) Protected
d) All of these options

28. Compiler generated copy constructor performs____

a) Shallow copy
b) Deep copy
c) Both Shallow and Deep copy
d) None of these options

29. Target class of a__function call is determined at run time.

a) Instance
b) Virtual
c) Operator
d) None of the given

30. 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

31. 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

32. In c++, compiler can generate which of the following operators 'code

a) ==
b) =
c) &

33. 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 classes interchangeably
d) None of the given option

34. 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

35. 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

36. 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

37. 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

38. 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

39. In case of protected inheritance, public members of the base class will be_____in derived class

a. Private

b. Public

c. Protected

d. Hidden

40. Methodologies to the development of reusable software related to_____

a. Structured programming

b. Procedural programming

c. Generic programming

d. None of the given

41. 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

42. 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

43. Consider the code below. Class class1{

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

a) Public

b) Protected

c) Private

d) None of the options

44. In case of private inheritance, private members of base class will be_____in derived class?

a. Private

b. Public

c. Protected

d. Hidden

45. 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

46. 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

47. 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

48. Consider the code below class 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

49. Which of the following causes run time binding?

a) Declaring object of abstract class
b) Declaring pointer of abstract class
c) Declaring overridden methods as non-virtual
d) None of the given

50. 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?

a) Templates (Page 256)
b) Overloading
c) Data hiding
d) Encapsulation

51. A copy constructor is invoked when

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

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

a) True (Page 288)
b) False

53. By default, the vector data items are initialized to _
a) 0_google
b) 0.0
c) 1
d) Null

54. 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

a) specialization
b) inheritance (Page 216)
c) abstraction
d) composition

55. Which of the following is/are advantage[s] of generic programming?
a) Reusability
b) Writability
c) Maintainability
d) All of given (Page 256)

56. Template functions use ___than ordinary functions.
a) Greater Memory
b) Lesser Memory
c) Equal Memory
d) None of the given options

57. Non-Template Friend functions of a class are friends of_instance/s of that class.
a) All google
b) One specific
c) All instances of one date type
d) None of the given options

58. A pointer to a base class can point to objects of a derived class.
a) True google
b) False

59. A template argument is preceded by the keyword___.
a) vector
b) class
c) template
d) type*

60. Which one of the following terms must relate to polymorphism?
a) Static allocation
b) Static typing
c) Dynamic binding (Page 239)
d) Dynamic allocation

61. Multiple inheritance can be of type
a) Public
b) Private
c) Protected
d) All of the given

62. Assume a class Derv that is privately derived from class Base. An object of class Derv located in main() can access
a) public members of Derv
b) protected members of Derv.
c) private members of Derv.
d) protected members of Base.

63. A function call is resolved at run-time in_____
a) non-virtual member function.
b) virtual member function. (Page 239)
c) Both non-virtual member and virtual member function.
d) None of given

64. Two important STL associative containers are__and_____.
a) set,map
b) sequence,mapping
c) setmet,multipule
d) sit,mat

65. An abstract class is useful when,
a) We do not derive any class from it.
b) There are multiple paths from one derived class to another.
c) We do not want to instantiate its object
d) You want to defer the declaration of the class.

66. Suppose you create an uninitialized vector as follows:
vector<int> evec;
After adding the statment, evec.push_back(21);
what will happen?

a) The following statement will add an element to the start (the back) of evec and will initialize it with the value 21.
b) The following statement will add an element to the center of evec and will reinitialize it with the value 21.
c) The following statement will delete an element to the end (the back) of evec and will reinitialize it with the value 21.
d) The following statement will add an element to the end (the back) of evec and initialize it with the value 21.

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

a) Parameter, temporary
b) Null, Parameter
c) Parameter, default (Page 75)
d) None of the given

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

a) True
b) False

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

a) template <typename T> (Page 257)
b) typename <template T>
c) Template Class <ClassName>
d) Class <Template T>

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

a) A< char > obj;
b) <char>A obj;
c) A obj<char>;
d) Obj <char> A;

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

a) True
b) False

72. The find() algorithm

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

73. Compiler performs___type checking to diagnose type errors,

a) Static (Page 261)
b) Dynamic
c) Bound
d) Unbound

74. Vectors contain contiguous elements stored as a[an]_____.

a) variable
b) array (Page 306)
c) function
d) datatype

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

a) data can be quickly inserted or deleted at any arbitrary location.
b) data can be inserted or deleted at any arbitrary location, but the process is relatively slow.
c) data cannot be quickly inserted or deleted at either end.
d) data can be inserted or deleted at either end, but the process is relatively slow.

76. 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:

a) Generic element (not sure)
b) Heading element
c) Paragraph element
d) Nothing will be printed.

77. 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.

a) No
b) Only if the two classes have the same name (Page 204)
c) Only if the main program does not declare both kinds

78. 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.

a) True
b) False

94.

79. 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,

a) general template
b) partial specialization
c) complete specialization
d) ordinary function(Page 287)

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

a) True
b) False

81. In__, a base class can be replaced by its derived class,

a. Sub-typing (Page 31)
b. Super-typing
c. Multiple-typing
d. Restricted-typing

82. What is a class?

a) A class is a section of computer memory containing objects.
b) A class is a section of the hard disk reserved for object-oriented programs
c) A class is the part of an object that contains the variables.
d) A class is a description of a kind of object.

83. Inheritance is a way to

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

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

a) True
b) False

85. _and_____methods may not be declared abstract.

a) private,static
b) private,public
c) static,public
d) none of given

86. In _____, a base class can be replace by its derived class,

a) Sub-Typing
b) Super-Typing
c) Multiple-Typing
d) Restricted Typing

87. Public methods of base class can -----be accessed in its derived class

a) directly (Page 179) rep
b) indirectly
c) simultaneously
d) None of the given

88. What is true about function templates?

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

89. 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 _____).

a) scope resolution operator
b) dot operator
c) null operator
d) Operator overloading

90. one this pointer does not point to current object of any class,
a) True
b) False

91. Which of the following operator(s) take(s) one or no argument if overloaded?
a) ++(Page 162)
b) -
c) +
d) All of the given

92. Which of the following operators cannot be overloaded?
a) Scope resolution operator (::) (Page 141)
b) Insertion operator (<<)
c) Extraction operator (>>)
d) The relation operator (>)

93. Which of these are examples of error handling techniques?
a) Abnormal Termination
b) Graceful Termination
c) Return the illegal
d) all of the given (Page 329)

94. Virtual functions allow you to
a) create an array of type pointer-to-base class that can hold pointers to derived classes.
b) create functions that can never be accessed.
c) group objects of different classes so they can all be accessed by the same function code.
d) use the same function call to execute member functions of objects from different classes

95. The copy() algorithm returns an iterator to
a) the last element copied from.
b) the last element copied to.
c) the element one past the last element copied from.
d) the element one past the last element copied to.

96. 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.
a) 11 for v and 3 for w.
b) 0 for v and 0 for w.
c) 0 for v and 3 for w.
d) 3 for v and 11 for w.

97. Which is not the Advantage of inheritance?
a) providing class growth through natural selection. (Object-Oriented Programming in C++)
b) facilitating class libraries.
c) avoiding the rewriting of code.
d) providing a useful conceptual framework.

98. How the information hidden within an object can be accessed?
a) Through its interface
b) Through its private data members
c) Through its private member functions
d) Through both public and private members

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

100. An STL container cannot be used to,
a) hold objects of class employee.
b) store elements in a way that makes them quickly accessible.
c) compile c++ programs. (Object-Oriented Programming in C++)
d) organize the way objects are stored in memory

101. Which of the following may not be an integral part of an object?
a) State
b) Behavior
c) Protected data members (Page 12)
d) All of given

Suppose that the Test class does not have an overloaded assignment operator.

101 What happens when an assignment a=b; is given for two Test objects a and b?

a. The automatic assignment operator is used

b. The copy constructor is used

c. Compiler error

d. Run-time error

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

a. Declared

b. Define

c. Instantiated

d. Called

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

a. Dangling pointer

b. Memory Leakage

c. All of the given

d. System crash

106 _____ provide the facility to access the data member.

accesser function

private function

inline function

None of the given

107 The _____ relationship indicates that an object contains other objects.

a. None of given

b. 'has-a'

c. 'is-a'

d. 'be-

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

a. Encapsulation

b. Polymorphism

c. Data hiding

d. Inheritance

109 _____ satisfy the condition of polymorphism

a. Carbon

b. Diamond

c. Coal

d. all of the given

110 A generalization-specialization relation between classes are implemented using

a .data hiding

b. friend classes

c. encapsulation

d. inheritance

111 Which of the following is not an example of multiple inheritances?

a. Mermaid

b. Woman

c. None of the given

d. Amphibious Vehicle

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

a. Inheritance

b. Encapsulation

c. Abstraction

d. Polymarphism

113 The parameters given in temple definition other than those used for mentioning templates types are called

a. Type Parameters

b. Non Type parameters

c. Default Type Parameters

d. None of the given option

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

a. Class < typename T>class X{}

b. Template class C{}

c. Template < typename T> classX{}

d. Typename<class T > class X{}

115 In resolution order of function template, compiler searches for in the end
a. Complete specialization
b. Partial specialization
c. Ordinary function
d. Generic template

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

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

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

119 Each _of a template class by default becomes function template
a. Date member
b. Member function
c. Type parameter
d. Object

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

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

122 A is a pointer which is declared outside the
a. Container, cursor
b. Cursor, container
c. Container, class
d. This, cursor

123 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

124. 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

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

126. 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>

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

128. 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>

129. 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

130. 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

131. 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;

132. 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

133. 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>

134. In case of template specialization, if compiler cannot find required complete specialization then it searches for some
a) General template
b) Complete template
c) Partial specialization
d) None of the Given

135. 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

136. 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

137. Which of the following is not a sequence container?
a) Vector
b) Deque
c) Map
d) List

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

139. _____ Binding means that target function for a call is selected at compile time.

- Static
- Dynamic
- Automatic
- None of the given

140. In C++, Composition is a relationship between _____ and _____ objects.

- Parent, child
- Base, derived
- Whole, part
- All of the given

141. A pure virtual function is a virtual function that

- causes its class to be abstract.
- returns nothing.
- is used in a derived class.
- takes no arguments.

142. If class B inherits from class A then it contains all characteristics of _____.

- Exception Handling
- Inheritance
- Polymorphism
- Information Hiding

143. Polymorphism makes the system:

- reusable
- flexible
- faster
- All of the given

144. _____ is represented by a line with an unfilled diamond head towards the container.

- Inheritance
- Association
- Aggregation
- Composition

145. Subtyping means that derived class is behaviorally _____ with the base class.

- Same
- Compatible
- Different
- Incompatible

146. In operator overloading, which of the following operator takes one or no argument.

- ++
- *
- %
- <<

147. In C++ generic programming is done using

- Procedures
- Packages
- Templates
- None of the given

148. Function overriding is done in context of,

- Single class
- Single derived class
- Single base class
- Derived and base class

149. Which of the following can be the behavior of an object "Usman"?

- Name
- Age
- Address
- Eat

150. In polymorphism, messages can be interpreted in different ways depending upon the _____ class.

- base
- derived
- sender
- receiver