VIRTUAL UNIVERSITY OF PAKISTAN

CS304 Object Oriented Programming

Important Objective Type for Final-Term

1. 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

2. 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

3. 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.

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

- **True (Page 258)**
- False2

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

- **True (Page 288)**
- False

6. By default the vector data items are initialized to ____

- **0**
- 0.0
- 1
- null

7. 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

8. Which of the following is/are advantage[s] of generic programming?

- Reusability
- Writability
- Maintainability
- **All of given (Page 256)**

9. Template functions use _____ than ordinary functions.

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

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

- **All**
- One specific
- All instances of one date type
- None of the given options3

11. 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.

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

► **True**

► False

13. A template argument is preceded by the keyword _____.

► vector

► **class**

► template

► type*

14. Which one of the following terms must relate to polymorphism?

► Static allocation

► Static typing

► **Dynamic binding (Page 239)**

► Dynamic allocation

15. Multiple inheritance can be of type

► Public

► Private

► Protected

► **All of the given**

16. 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. (Object-Oriented Programming in C++)**

► protected members of Derv.

► private members of Derv.

► protected members of Base.4

17. A copy constructor is invoked when

► a function do not returns by value.

► **an argument is passed by value. (Page 78) (rep)**

► a function returns by reference.

► an argument is passed by reference.

18. 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

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

► **set,map (Object-Oriented Programming in C++)**

► sequence,mapping

► setmet,multipule

► sit,mat

20. 1. 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. (Object-Oriented Programming in C++)**

► You want to defer the declaration of the class.

21. Which of the following is/are advantage[s] of generic programming?

► Reusability

► Writability

► Maintainability

► **All of given (Page 256) rep**

22. By default the vector data items are initialized to ____

► **0 rep**

► 0.0

► 1

► null5

23. 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.**

24. 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

25. 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) rep**

► Overloading

► Data hiding

► Encapsulation

26. (Marks: 1) Describe the way to declare a template class as a friend of any class.

27. (Marks: 1) Classes like TwoDimensionalShape and ThreeDimensionalShape would normally be concrete, while classes like Sphere and Cube would normally be abstract.

► **True**

► False6

28. (Marks: 1) 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>

29. (Marks: 1) 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

30. 1 (Marks: 1) 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) rep**

► abstraction

► composition

31. 2 (Marks: 1) 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) rep**

► Overloading

► Data hiding

► Encapsulation7FINALTERM EXAMINATION Spring 2010 CS304- Object Oriented Programming

32. A template argument is preceded by the keyword _____.

- vector
- **class (Object-Oriented Programming in C++)**
- template
- type*

33. 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

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

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

35. 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) rep**
- Overloading
- Data hiding
- Encapsulation

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

- **A< char > obj; (Object-Oriented Programming in C++)**
- <char>A obj;
- A obj<char>;
- Obj <char> A;8

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

- **True**
- False

38. Template functions use _____ than ordinary functions.

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

39. 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.

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

- **Static (Page 261)**
- Dynamic
- Bound
- Unbound

41. Which of the following is/are advantage[s] of generic programming?

- Reusability
- Writability
- Maintainability
- **All of given (Page 256) rep**

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

- variable
- **array (Page 306)**
- function
- datatype9

43. 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.**

44. 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. (Object-Oriented Programming in C++)**
- 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.

45. Algorithms can only be implemented using STL containers.

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

46. 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 detail10**

47. 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.

48. 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

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

- **private,static**
- private,public
- static,public
- none of given

50. 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) rep**
- non of the given

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

- **directly (Page 179)**
- inderectly
- simultaniously
- non of the given

52. 1. The type that is used to declare a reference or pointer is called its ---------

- default type
- **static type (Page 185)**

- abstract type
- reference type11

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

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

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

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

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

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

56. 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

57. Destructor can be overloaded

- True
- False (Page 92)

58. Which one of the following terms must relate to polymorphism?

- Static allocation
- Static typing
- Dynamic binding (Page 239)
- Dynamic allocation

59. 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

60. 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) rep
- Overloading
- Data hiding
- Encapsulation

61. 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

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

- True (Page 258) rep
- False

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

- True (Page 288) rep
- False13

64. 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. (Object-Oriented Programming in C++) rep

► protected members of Derv.

► private members of Derv.

► protected members of Base.

65. A copy constructor is invoked when

► a function do not returns by value.

► an argument is passed by value. (Page 78) rep

► a function returns by reference.

► an argument is passed by reference.

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

► 1

► 2

► 3

► As many as necessary

67. 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();14p->Print(); } 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.

68. 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

69. 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 (Object-Oriented Programming in C++)

70. 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)

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

► variable

► array (Page 306) rep

► function

► datatype15

72. By default the vector data items are initialized to ____

► 0 rep

► 0.0

► 1

► null

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

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

► False

74. Algorithms can only be implemented using STL containers.

► True

► **False (Object-Oriented Programming in C++) rep**

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

► **Sub-typing (Page 31)**

► Super-typing

► Multiple-typing

► Restricted-typing

76. this pointer does not point to current object of any class,

► True

► **False The this pointer is a hidden pointer** inside every class member function that points to the class object the member function is working with.

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

► **++ (Page 162)**

► -

► +

► All of the given16

78. 1. Which of the following operators can not be overloaded?

► **Scope resolution operator (::) (Page 141)**

► Insertion operator (<<)

► Extraction operator (>>)

► The relation operator (>)

79. The type that is used to declare a reference or pointer is called its ---------

► default type

► **static type (Page 185) rep**

► abstract type

► reference type

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

► **protected (Page 187) rep**

► public

► private

► global

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

► Abnormal Termination

► Graceful Termination

► Return the illegal

► **all of the given (Page 329)**

82. _____ "is a" relationship

► **Inheritance (Page 25)**

► Polymarphism

► abstraction

► encapsulation

83. 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**

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

► **True rep**

► False

85. 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 (Object-Oriented Programming in C++)**

► **True rep**

► False

86. A copy constructor is invoked when

► a function do not returns by value.

► **an argument is passed by value. (Page 78) rep**

► a function returns by reference.

► an argument is passed by reference.

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

► 1

► 2

► 3

► **As many as necessary. rep18**

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

► **All rep**

► One specific

► All instances of one date type

► None of the given options

89. Template functions use _____ than ordinary functions.

► Greater Memory

► Lesser Memory

► Equal Memory

► None of the given options

90. 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.

91. 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. (Object-Oriented Programming in C++)**

92. 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. (Object-Oriented Programming in C++)19**

93. 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.

94. 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(); } 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.20**

95. 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

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

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

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

- **True (Page 262)**
- False

98. Which of the following is/are advantage[s] of generic programming?

- Reusability
- Writability
- Maintainability
- **All of given (Page 256) rep**

99. 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)**

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

- italic
- **iteration (Object-Oriented Programming in C++)**
- iterator
- None of given21

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

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

102. Consider the following statement Cupboard has books What is the relationship between Cupboard and books?

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

103. 1. Which sentence clearly defines an object?

- **one instance of a class. (Page 23)**
- another word for a class.
- a class with static methods.
- a method that accesses class attributes.

104. _____, 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

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

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

106. Consider the call given below of an over-loaded 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 oper-ator function?

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

107. If a class D has been derived using protect-ed 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

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

- specialization
- **inheritance (Page 216) rep**
- abstraction
- composition

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

- **True rep**
- False23

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

- 1
- 2
- 3
- **As many as necessary. Click here de-tail**

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

- **True (Page 262)**
- False

112. Consider the following statement Cupboard has books What is the relationship between Cupboard and books?

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

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

- **A< char > obj; (Object-Oriented Pro-gramming in C++)**
- <char>A obj;
- A obj<char>;
- Obj <char> A;

114. The user must define the operation of the

copy constructor.

- True
- False

115. 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) rep**
- non of the given

116. The type that is used to declare a reference or pointer is called its ---------

- default type
- **static type (Page 185)**
- abstract type
- reference type24

117. 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

118. The sub-object's life is not dependant on the life of master class in _____.

- Separation
- Composition
- **Aggregation (Page 134)**
- None of the given

119. 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

120. Algorithms can only be implemented using STL containers.

- True
- **False (Object-Oriented Programming in C++) rep**

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

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

Here T can be replaced with any name but it is preferable.

- class class-name() class template<class_name>

122. 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 memory25

123. _____, 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

124. Which of the following may not be an integral part of an object?

- State

► Behavior

► **Protected data members (Page 12)**

► All of given

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

► **directly (Page 179) rep**

► inderectly

► simultaniously

► non of the given

126. 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

127. 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.

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

► State

► Behavior

► Unique identity

► **All of the given (Page 12) rep**26

129. 1. 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**

130. 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

131. Which one of the following terms must relate to polymorphism?

► Static allocation

► Static typing

► **Dynamic binding (Page 239) rep**

► Dynamic allocation

132. 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) rep**

► The compiler can only generate copy for the int type data

► None of the given.

133. 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) rep**

► Overloading

► Data hiding

► Encapsulation27

134. template <> class Vector<char*> { } This is an example of partial specialization.

- True (Page 287)
- False

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

- True rep
- False

136. 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

137. 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. (Object-Oriented Programming in C++) rep
- protected members of Derv.
- private members of Derv.
- protected members of Base.

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

- template <typename T> (Page 257) rep
- typename <template T>
- Template Class <ClassName>
- Class <Template T>28

139. 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

140. 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

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

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

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- 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++) rep
- takes container elements as its first two arguments.

143. 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. (Object-Oriented

Programming in C++) rep29

144. Which of the following may not be an integral part of an object?

- ► State
- ► Behavior
- ► **Protected data members (Page 12)**
- ► All of given

145. Which is not the Advantage of inheritance?

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

146. 1class DocElement { public: virtual void Print() { cout << "Generic element"; } }; 2class Heading : public DocElement { public: void Print() { cout << "Heading element"; } }; 3class Paragraph : public DocElement { public: void Print() { cout << "Paragraph element"; } }; void main() { DocElement * p = new Paragraph(); p->Print(); } When you run this program, it will print out a single line to the console output.30What will be in that line? Select one correct answer from the following list:

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

147. 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 (Object-Oriented Programming in C++)**

148. 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

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

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

Here T can be replaced with any name but it is preferable.

- ► class class-name() class template<class_name>

150. 1. 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>31

151. 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++) rep**
- ► organize the way objects are stored in memory

152. Algorithms can only be implemented using STL containers.

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

153. Consider a class named Vehicle, which

of the following can be the instance of class Vehicle?1. Car2. Computer3. Desk4. Ahmed5. Bicycle6. Truck

- 1, 4, 5
- 2, 5, 6
- 1, 2, 3, 6
- 1, 5, 6 (correct)

154. 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 error32
- 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 timesFred* p = new Fred[10]; calls the default constructor 10 times**

155. 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

156. The life of sub object is dependant on the life of master class in _____.

- Separation
- **Composition (Page 53)**
- Aggregation
- None of the given

157. _____, 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

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

- /
- -
- +
- **++ (Page 162)**

159. 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) rep**
- abstraction
- composition

160. Which one of the following terms must relate to polymorphism?

- Static allocation
- Static typing
- **Dynamic binding (Page 239) rep**
- Dynamic allocation

161. Multiple inheritance can be of type

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

162. 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

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

► True (Page 258) rep

► False

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

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

► False

165. 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. (Object-Oriented Programming in C++) rep

► protected members of Derv.

► private members of Derv.

► protected members of Base.34

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

► True

► False

167. A copy constructor is invoked when

► a function do not returns by value.

► an argument is passed by value. (Page 78) rep

► a function returns by reference.

► an argument is passed by reference.

168. A function call is resolved at run-time in_____

► non-virtual member function.

► virtual member function. (Page 239) rep

► Both non-virtual member and virtual member function.

► None of given

169. 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

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

► 1

► 2

► 3

► As many as necessary. rep

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

► set,map (Object-Oriented Programming in C++) rep

► sequence,mapping

► setmet,multipule

► sit,mat35

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

173. 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 ob-

ject. (Object-Oriented Programming in C++) rep

► You want to defer the declaration of the class.

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

► template<class T>

► template <typename U>

► Class<template T> (Page 257) rep

► template < class T, class U>

175. Which of the following is/are advantage[s] of generic programming?

► Reusability

► Writability

► Maintainability

► All of given (Page 256) rep

176. By default the vector data items are initialized to ____

► 0 rep

► 0.0

► 1

► null

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

► length();

► size(); (Page 318)

► ele();

► veclen();36

178. 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.

179. 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++) rep

► organize the way objects are stored in memory

180. 1. Algorithms can only be implemented using STL containers.

► True

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

181. 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

► To make a class private

182. 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 execution37

183. 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];

► 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 construc-tor 10 timesFred* p = new Fred[10]; calls the default constructor 10 times**

184. Associativity can be changed in operator overloading.

► True

► **False (Page 141)**

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

► glorified.

► encapsulated.

► classified.

► **overloaded. (Object-Oriented Program-ming in C++)**

186. Which operator can not be overloaded?

► The relation operator (>=)

► Assignment operator (=)

► Script operator ([])

► **Conditional operator (? :) (Page 141)38**

187. Suppose obj1 and obj2 are two objects of a user defined class A. An + operator is overload-ed to add obj1 and obj2 using the function call obj1+obj2. Identify the correct function proto-type against the given call?

► A operator + (A &obj);

► **int + operator(); (Page 143)**

► int operator (plus) ();

► A operator(A &obj3);

188. Default constructor is such constructor which either has no ----------or if it has some pa-rameters these have -------- values

► Parameter, temporary

► Null, Parameter

► **Parameter, default (Page 75) rep**

► non of the given

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

► **directly (Page 179) rep**

► inderectly

► simultaniously

► non of the given