



C++ TECHNICAL QUESTIONS (OBJECTIVE TYPE)

1. Which of the followings is/are automatically added to every class, if we do not write our own?

- (A) Copy Constructor
- (B) Assignment Operator
- (C) A constructor without any parameter
- (D) All of the above

Answer: **D**

2. When a copy constructor may be called?

- (A) When an object of the class is returned by value.
- (B) When an object of the class is passed (to a function) by value as an argument.
- (C) When an object is constructed based on another object of the same class
- (D) When compiler generates a temporary object
- (E) All of the above

Answer: **E**

3. Constructors have _____ return type.

- (A) void
- (B) char
- (C) int
- (D) no

Answer: **D**

4. Implicit return type of a class constructor is:

- (A) not of class type itself
- (B) class type itself
- (C) a destructor of class type
- (D) a destructor not of class type

Answer: **B**

5. Which of the following is true about constructors?

- 1) They cannot be virtual.
 - 2) They cannot be private.
 - 3) They are automatically called by new operator.
- (A) All 1, 2, and 3 (B) Only 1 and 3 (C) Only 1 and 2 (D) Only 2 and 3

Answer: **B**



6. Output of following program?

```
#include<iostream>
using namespace std;
class Point {
    Point() { cout << "Constructor called"; }
}; int main()
{
    Point t1;
    return 0;
}
```

(A) Compiler Error (B) Runtime Error (C) Constructor called (D) None of the above

Answer: **A**

7. #include<iostream>

```
using namespace std;
class Point {
public:
    Point() { cout << "Constructor called"; }
};
int main()
{
    Point t1, *t2;
    return 0;
}
```

(A) Compiler Error (B) Constructor called Constructor called

(C) Constructor called (D) None of the above

Answer: **C**

8. Which operator is having the highest precedence?

a) postfix b) unary c) shift d) equality

Answer: **D**



9. Which of the following is FALSE about references in C++?
- (A) References cannot be NULL
 - (B) A reference must be initialized when declared
 - (C) Once a reference is created, it cannot be later made to reference another object; it cannot be reset.
 - (D) References cannot refer to constant value

Answer: **D**

10. Which of the following functions must use reference?
- (A) Assignment operator function
 - (B) Copy Constructor
 - (C) Destructor
 - (D) Parameterized constructor

Answer: **B**

11. Output of following C++ program?

```
#include<iostream>
using namespace std;
int main()
{
    int x = 10;
    int& ref = x;
    ref = 20;
    cout << "x = " << x << endl ;
    x = 30;
    cout << "ref = " << ref << endl;
    return 0;
}
```

- (A) x = 20; ref = 30
- (B) x = 20; ref = 20
- (C) x = 10; ref = 30
- (D) x = 30; ref = 30

Answer: **A**



12. What is the difference between struct and class in C++?

- (A) All members of a structure are public and structures don't have constructors and destructors
- (B) Members of a class are private by default and members of struct are public by default. When deriving a struct from a class/struct, default access-specifier for a base class/struct is public and when deriving a class, default access specifier is private.
- (C) All members of a structure are public and structures don't have virtual functions
- (D) All of the above

Answer: **B**

13. Predict the output of following C++ program.

```
#include<iostream>
using namespace std;
class Empty { };
int main() {
    cout << sizeof(Empty);
    return 0;
}
```

- (A) A non-zero value (B) 0 (C) Compiler Error (D) Runtime Error

Answer: **A**

14. class Test {

```
    int x;
};
int main() {
    Test t;
    cout << t.x;
    return 0;
}
```

- (A) 0 (B) Garbage Value (C) Compiler Error (D) None

Answer: **C**



15. Which of the following is true?

- (A) All objects of a class share all data members of class
- (B) Objects of a class do not share non-static members. Every object has its own copy.
- (C) Objects of a class do not share codes of non-static methods, they have their own copy
- (D) None of the above

Answer: **B**

16. A member function can always access the data in _____, (in C++).

- (A) the class of which it is member
- (B) the object of which it is a member
- (C) the public part of its class
- (D) the private part of its class

Answer: **A**

17. Which of the following is not correct for virtual function in C++?

- (A) Must be declared in public section of class.
- (B) Virtual function can be static.
- (C) Virtual function should be accessed using pointers.
- (D) Virtual function is defined in base class.

Answer: **B**

18. Which of the following is not correct (in C++)?

1. Class templates and function templates are instantiated in the same way
2. Class templates differ from function templates in the way they are initiated
3. Class template is initiated by defining an object using the template argument
4. Class templates are generally used for storage classes

- (A) (1)
- (B) (2), (4)
- (C) (2), (3), (4)
- (D) (4)

Answer: **C**

19. Which of the following cannot be passed to a function in C++?

- (A) Constant
- (B) Structure
- (C) Array
- (D) Header file

Answer: **D**

20. Which of the following, in C++, is inherited in a derived class from base class?

- (A) Constructor
- (B) Destructor
- (C) Data members
- (D) Virtual methods

Answer: **C**



21. Which of the following is a correct statement?

- (A) Composition is a strong type of association between two classes with full ownership.
- (B) Composition is a strong type of association between two classes with partial ownership.
- (C) Composition is a weak type of association between two classes with partial ownership.
- (D) Composition is a weak type of association between two classes with strong ownership.

Answer: **A**

22. Which of the following is not a correct statement?

- (A) Every class containing abstract method must be declared abstract.
- (B) Abstract class can directly be initiated with 'new' operator.
- (C) Abstract class can be initiated.
- (D) Abstract class does not contain any definition of implementation.

Answer: **B**

23. When a method in a subclass has the same name and type signatures as a method in the superclass, then the method in the subclass _____ the method in the superclass.

- (A) Overloads
- (B) Friendships
- (C) Inherits
- (D) Overrides

Answer: **D**

24. It is possible to define a class within a class termed as nested class. There are _____ types of nested classes.

- (A) 2
- (B) 3
- (C) 4
- (D) 5

Answer: **A**

25. When one object reference variable is assigned to another object reference variable then

- (A) a copy of the object is created.
- (B) a copy of the reference is created.
- (C) a copy of the reference is not created.
- (D) it is illegal to assign one object reference variable to another object reference variable.

Answer: **B**

26. Which of the following is not a member of class?

- (A) Static function
- (B) Friend function
- (C) Const function
- (D) Virtual function

Answer: **B**



27. How can we restrict dynamic allocation of objects of a class using new?

- (A) By overloading new operator
- (B) By making an empty private new operator.
- (C) By making an empty private new and new[] operators
- (D) By overloading new operator and new[] operators

Answer: **C**

28. Which of the following operators cannot be overloaded?

- (A) . (Member Access or Dot operator)
- (B) ?: (Ternary or Conditional Operator)
- (C) :: (Scope Resolution Operator)
- (D) .* (Pointer-to-member Operator)
- (E) All of the above

Answer: **E**

29. Which of the following operators are overloaded by default by the compiler in every user defined classes even if user has not written?

- 1) Comparison Operator (==) 2) Assignment Operator (=)
- (A) Both 1 and 2
 - (B) Only 1
 - (C) Only 2
 - (D) None of the two

Answer: **C**

30. Which of the following operators should be preferred to overload as a global function rather than a member method?

- (A) Postfix ++
- (B) Comparison Operator
- (C) Insertion Operator <<
- (D) Prefix ++

Answer: **C**

31. How C++ compiler does differ between overloaded postfix and prefix operators?

- (A) C++ doesn't allow both operators to be overloaded in a class
- (B) A postfix ++ has a dummy parameter
- (C) A prefix ++ has a dummy parameter
- (D) By making prefix ++ as a global function and postfix as a member function.

Answer: **B**

32. Which of the following operator functions cannot be global?

- (A) new
- (B) delete
- (C) Conversion Operator
- (D) All of the above

Answer: **C**



33. Which of the following is true about this pointer?

- (A) It is passed as a hidden argument to all function calls
- (B) It is passed as a hidden argument to all non-static function calls
- (C) It is passed as a hidden argument to all static functions
- (D) None of the above

Answer: **B**

34. What is the use of this pointer?

- (A) When local variable's name is same as member's name, we can access member using this pointer.
- (B) To return reference to the calling object
- (C) Can be used for chained function calls on an object
- (D) All of the above

Answer: **D**

35. Which of the following in Object Oriented Programming is supported by Function overloading and default arguments features of C++?

- (A) Inheritance
- (B) Polymorphism
- (C) Encapsulation
- (D) None of the above

Answer: **B**

36. Output of the program?

```
#include<iostream>
using namespace std;
int fun(int x = 0, int y = 0, int z)
{ return (x + y + z); }
int main()
{
    cout << fun(10);
return 0;
}
```

- (A) 10
- (B) 0
- (C) 20
- (D) Compiler Error

Answer: **D**



37. Output of following program?

```
#include <iostream>
using namespace std;
int fun(int=0, int = 0);
int main()
{
    cout << fun(5);
    return 0;
}
int fun(int x, int y)
{
    return (x+y);
}
```

(A) Compiler Error (B) 5 (C) 0 (D) 10

Answer: **B**

38. Which of the following is true?

- (A) Static methods cannot be overloaded.
- (B) Static data members can only be accessed by static methods.
- (C) Non-static data members can be accessed by static methods.
- (D) Static methods can only access static members (data and methods)

Answer: **D**

39. If a function is friend of a class, which one of the following is wrong?

- (A) A function can only be declared a friend by a class itself.
- (B) Friend functions are not members of a class, they are associated with it.
- (C) Friend functions are members of a class.
- (D) It can have access to all members of the class, even private ones.

Answer: **C**



40. Which one of the following is correct, when a class grants friend status to another class?
- (A) The member functions of the class generating friendship can access the members of the friend class.
 - (B) All member functions of the class granted friendship have unrestricted access to the members of the class granting the friendship.
 - (C) Class friendship is reciprocal to each other.
 - (D) There is no such concept.

Answer: **B**

41. In C++, const qualifier can be applied to
- 1) Member functions of a class
 - 2) Function arguments
 - 3) To a class data member which is declared as static
 - 4) Reference variables

- (A) Only 1, 2 and 3
- (B) Only 1, 2 and 4
- (C) All
- (D) Only 1, 3 and 4

Answer: **C**

42. How to create a dynamic array of pointers (to integers) of size 10 using new in C++?

Hint: We can create a non-dynamic array using `int *arr[10]`

- (A) `int *arr = new int *[10];`
- (B) `int **arr = new int *[10];`
- (C) `int *arr = new int [10];`
- (D) Not Possible

Answer: **B**

43. Which of the following is true about new when compared with malloc:

- 1) new is an operator, malloc is a function
- 2) new calls constructor, malloc doesn't
- 3) new returns appropriate pointer, malloc returns void * and pointer needs to typecast to appropriate type.

- (A) 1 and 3
- (B) 2 and 3
- (C) 1 and 2
- (D) All 1, 2 and 3

Answer: **D**



44. Predict the output?

```
#include <iostream>
using namespace std;
class Test
{
    int x;
    Test()
    {
        x = 5;
    }
};
int main()
{
    Test *t = new Test;
    cout << t->x;
}
```

(A) Compiler Error (B) 5 (C) Garbage Value (D) 0

Answer: **A**

45. Is it fine to call delete twice for a pointer?

```
#include<iostream>
using namespace std;
int main()
{
    int *ptr = new int;
    delete ptr;
    delete ptr;
    return 0;
}
```

(A) Yes (B) No

Answer: **B**



46. When the inheritance is private, the private methods in base class are _____ in the derived class (in C++).

- (A) inaccessible (B) accessible (C) protected (D) public

Answer: **A**

47. What happens when delete is used for a NULL pointer?

```
int *ptr = NULL;
```

```
delete ptr;
```

- (A) Compiler Error (B) Run-time Crash (C) No Error (D) None

Answer: **C**

48. Which of the following is true about virtual functions in C++?

(A) Virtual functions are functions that can be overridden in derived class with the same signature.

(B) Virtual functions enable run-time polymorphism in a inheritance hierarchy.

(C) If a function is 'virtual' in the base class, the most-derived class implementation of the function is called according to the actual type of the object referred to, regardless of the declared type of the pointer or reference. In non-virtual functions, the functions are called according to the type of reference or pointer.

(D) All of the above

Answer: **D**

49. Which of the following is true about pure virtual functions?

1) Their implementation is not provided in a class where they are declared.

2) If a class has a pure virtual function, then the class becomes abstract class and an instance of this class cannot be created.

- (A) Both 1 and 2 (B) Only 1 (C) Only 2 (D) Neither 1 nor 2

Answer: **C**

50. What is the size of wchar_t in C++?

- (A) 2 (B) 4 (C) 2 or 4 (D) Based on the number of bits in the system

Answer: **D**



51. Which of the following is true about templates?

- 1) Template is a feature of C++ that allows us to write one code for different data types.
- 2) We can write one function that can be used for all data types including user defined types. Like sort(), max(), min(), ..etc.
- 3) We can write one class or struct that can be used for all data types including user defined types. Like Linked List, Stack, Queue,..etc.
- 4) Template is an example of compile time polymorphism.

(A) 1 and 2 (B) 1, 2 and 3 (C) 1, 2 and 4 (D) 1, 2, 3 and 4

Answer: **D**

52. Which of the following is incorrect in C++?

- (1)When we write overloaded function we must code the function for each usage.
- (2)When we write function template we code the function only once.
- (3)It is difficult to debug macros
- (4)Templates are more efficient than macros

(A) (1) and (2) (B) (1), (2) and (3)
(C) (3) and (4) (D) All are correct.

Answer: **D**

53. Pick the odd one out

(A) array type (B) character type (C) Boolean type (D) integer type

Answer: **A**

54. Which data type is used to represent the absence of parameters?

(A) int (B) short (C) void (D) float

Answer: **C**

55. What does an escape code represent?

(A) alert (B) backslash (C) tab (D) form feed

Answer: **A**

56. Which type is best suited to represent the logical values?

(A) integer (B) Boolean (C) character (D) all of the mentioned

Answer: **B**



57. Identify the user-defined types from the following?

- (A) enumeration (B) classes (C) both enumeration and classes (D) int

Answer: C

58. Which of the following statements are true?

int f (float)

- (A) f is a function taking an argument of type int and returning a floating point number
(B) f is a function taking an argument of type float and returning an integer
(C) f is a function of type float
(D) none of the mentioned

Answer: B

59. The value 132.54 can be represented using which data type?

- (A) double (B) void (C) int (D) bool

Answer: A

60. When a language has the capability to produce new data type mean, it can be called as

- (A) overloaded (B) extensible (C) encapsulated (D) reprehensible

Answer: B

61. Choose the operator which cannot be overloaded.

- (A) / (B) () (C) :: (D) %

Answer: C

62. Which operator is required to be overloaded as member function only?

- (A) _ (B) __ (C) ++ (postfix version) (D) =

Answer: D

63. Class function which is called automatically as soon as the object is created is called as ___

- (A) Constructor (B) Destructor (C) Friend function (D) Inline function.

Answer: A

64. Which type of data file is analogous to an audio cassette tape?

- (A) Random access file (B) Sequential access file
(C) Binary file (D) Source code file

Answer: B



65. What is the built in library function to compare two strings?

- (A) string_cmp() (B) strcmp() (C) equals() (D) str_compare()

Answer: **B**

66. Which of the following are member dereferencing operators in CPP?

1. * 2. :: 3. ->* 4. ::* 5. ->

- (A) Only 1, 3, 4 (B) Only 1 and 5 (C) Only 3 and 4 (D) Only 3,4,5

Answer: **A**

67. Which of the followings is/are pointer-to-member declarator?

- (A) ->* (B) .* (C) ::* (D) both A and B

Answer: **C**

68. Assigning one or more function body to the same name is called _____.

- (A) Function Overriding (B) Function Overloading
(C) Both A and B (D) None of the above

Answer: **B**

69. Default values for a function are specified when ____.

- (A) Function is defined (B) Function is declared
(C) Both a and b (D) None of these

Answer: **B**

70. Which of the following best defines the syntax for template function?

- (A) Template (B) Template return_type Function_Name(Parameters)
(C) Both a and b (D) None of these

Answer: **C**

71. Return type of uncaught_exception () is _____.

- (A) int (B) bool (C) char * (D) double

Answer: **B**

72. If inner catch handler is not able to handle the exception then_____.

- (A) Compiler will look for outer try handler (B) Program terminates abnormally
(C) Compiler will check for appropriate catch handler of outer try block (D) None

Answer: **C**



73. Attempting to throw an exception that is not supported by a function call results in calling _____ library function.

- (A) indeterminate () (B) unutilized() (C) unexpected() (D) unpredicted()

Answer: **C**

74. The code of statements which may cause abnormal termination of the program should be written under _____ block.

- (A) Try (B) catch (C) Finally (D) None of these

Answer: **A**

75. When a virtual function is redefined by the derived class, it is called _____.

- (A) Overloading (B) Overriding (C) Rewriting (D) All of these

Answer: **B**

76. While overloading binary operators using member function, it requires ___ argument/s.

- (A) Zero (B) One (C) Two (D) Three

Answer: **B**

77. Where the default value of parameter have to be specified?

- (A) Function call (B) Function definition (C) Function prototype (D) Both B or C

Answer: **C**

78. For automatic objects, constructors and destructors are called each time the objects

- (A) enter and leave scope (B) inherit parent class (C) are constructed (D) are destroyed

Answer: **A**

79. Which operation is used as Logical 'AND'

- (A) Operator-& (B) Operator-|| (C) Operator-&& (D) Operator +

Answer: **C**

80. When an ADT is implemented as a C++ class, which of the following should normally be true?

- (A) Member functions are private, member variables are public
(B) Member functions are public, member variables are private
(C) Member functions as well as member variables are private
(D) Member functions as well as member variables are public

Answer: **B**



81. Variable that are listed in function's calls are called

- (A) Actual parameter (B) Declared parameter (C) Passed parameter (D) None

Answer: **B**

82. What kind of error can arise when there is a problem with memory?

- (A) Segmentation fault (B) Produce an error
(C) Both Segmentation fault & Produce an error (D) None of the mentioned

Answer: **A**

83. Which operations don't throw anything?

- (A) Operations which are reversible (B) Operations which are irreversible
(C) Operations which are static (D) Operations which are dynamic

Answer: **B**

84. What operation can be performed by destructor?

- (A) Abort the program (B) Resource cleanup
(C) Exit from the current block (D) None of the mentioned

Answer: **B**

85. Which interface in the container is required for storage management?

- (A) Memory management (B) Allocator interface
(C) Memory interface (D) None of the mentioned

Answer: **B**

86. How can the member functions in the container be accessed?

- (A) Iterator (B) Indirect (C) Both Iterator & Indirect (D) None of the mentioned

Answer: **A**

87. In which type of storage location are the vector members stored?

- (A) Contiguous storage locations (B) Non-contiguous storage locations
(C) Contiguous & Non-contiguous storage locations (D) None of the mentioned

Answer: **A**

88. What do container adapter provide to interface?

- (A) Restricted interface (B) More interface (C) No interface (D) None

Answer: **A**



89. What does the sequence adaptor provide?

- (A) Insertion (B) Deletion
(C) Interface to sequence container (D) None

Answer: C

90. Which operators is part of RTTI?

- (A) dynamic_cast() (B) typeid
(C) Both dynamic_cast() & typeid (D) None

Answer: C

91. At which time does the static_cast can be applied?

- (A) Compile-time construct (B) Runtime construct
(C) Both Compile-time & Runtime construct (D) None

Answer: A

92. Which function is used to position back from the end of file object?

- (A) seekg (B) seekp (C) both seekg & seekp (D) None

Answer: A

93. String class have a concat() function that is used to _____

- (A) Replace old string by new string (B) Add two strings
(C) Append one string at end of another string (D) Remove a string from end of one string

Answer: C

94. Which among the following is/are type(s) of this pointer?

- (A) const (B) volatile (C) const or volatile (D) int

Answer: C

95. Which is the pointer which denotes the object calling the member function?

- (A) Variable pointer (B) This pointer (C) Null pointer (D) Zero pointer

Answer: B

96. Which property is shown most when upcasting is used?

- (A) Code reusability (B) Code efficiency
(C) Complex code simple syntax (D) Encapsulation

Answer: C



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97. If multiple inheritance is implemented, which upcasting will be correct?

- (A) Upcast to first base class listed in inheritance (B) Upcast to any base class
(C) Upcast to send base class listed in inheritance (D) Upcast is not possible

Answer: **B**

98. When are the pointer types known for upcasting the objects?

- (A) Compile time (B) Runtime
(C) Source code build time (D) Doesn't apply to pointer types

Answer: **A**

99. Which among the following is a mandatory condition for downcasting?

- (A) It must not be done explicitly (B) It must be done implicitly
(C) It must be done explicitly (D) It can't be done explicitly

Answer: **C**

100. Which container provides random access iterators?

- (A) vector (B) deque (C) sort (D) both vector & deque

Answer: **D**