

# MCQ Question Bank

## C++ Programming

1/1/2014

MCQ Sets



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# Questions

# Multiple Choice Questions

For

C++ Programming



by:



1. If the class name is X, what is the type of its "this" pointer (in a nonstatic, non-const member function)?
  - a. const X\* const
  - b. X\* const
  - c. X\*
  - d. X&
2. Which classes allow primitive types to be accessed as objects?
  - a. Storage
  - b. Virtual
  - c. Friend
  - d. Wrapper
3. When is `std::bad_alloc` exception thrown?
  - a. When new operator cannot allocate memory
  - b. When alloc function fails
  - c. When type requested for new operation is considered bad, `thisexception` is thrown
  - d. When delete operator cannot delete the allocated (corrupted) object
4. Which one of the following is not a fundamental data type in C++?
  - a. float
  - b. string
  - c. int
  - d. `wchar_t`
5. Which of the following is a valid destructor of the class name "Country"?
  - a. `int ~Country()`
  - b. `void Country()`
  - c. `int ~Country(Country obj)`
  - d. `void ~Country()`
6. Which of the following correctly describes C++ language?
  - a. Statically typed language
  - b. Dynamically typed language
  - c. Both Statically and dynamically typed language
  - d. Type-less language
7. Which of the following keyword supports dynamic method resolution?
  - a. abstract
  - b. Virtual
  - c. Dynamic
  - d. `Typeid`
8. Which of the following is the most preferred way of throwing and handling exceptions?
  - a. Throw by value and catch by reference.
  - b. Throw by reference and catch by reference.
  - c. Throw by value and catch by value
  - d. Throw the pointer value and provide catch for the pointer type.
9. Which of the following is not true about preprocessor directives?
  - a. They begin with a hash symbol
  - b. They are processed by a preprocessor
  - c. They form an integral part of the code
  - d. They have to end with a semi colon
10. What's wrong? `while( (i < 10) && (i > 24) )`
  - a. the logical operator `&&` cannot be used in a test condition
  - b. the while loop is an exit-condition loop
  - c. the test condition is always false
  - d. the test condition is always true
11. A `continue` statement causes execution to skip to
  - a. the `return 0;` statement
  - b. the first statement after the loop
  - c. the statement following the `continue` statement
  - d. the next iteration of the loop
12. What's wrong? `(x = 4 && y = 5) ? (a = 5) ; (b = 6);`
  - a. the question mark should be an equal sign
  - b. the first semicolon should be a colon
  - c. there are too many variables in the statement
  - d. the conditional operator is only used with `apstrings`
13. What's wrong? `for (int k = 2, k <= 12, k++)`
  - a. the increment should always be `++k`
  - b. the variable must always be the letter `i` when using a for loop
  - c. there should be a semicolon at the end of the statement
  - d. the commas should be semicolons
14. Which of the following is not recommended in a header file?
  - a. Type definitions (`typedefs`)
  - b. Class definitions
  - c. Function definitions
  - d. Template definitions
15. Which of the STL containers store the elements contiguously (in adjacent memory locations)?
  - a. `std::vector`
  - b. `std::list`
  - c. `std::map`
  - d. `std::set`
16. Which of the following is not a standard exception built in C++.
  - a. `std::bad_creat`
  - b. `std::bad_alloc`
  - c. `std::bad_cast`
  - d. `std::bad_typeid`
17. What does STL stand for?
  - a. Simple Template Library
  - b. Standard Template Library
  - c. Static Type Library
  - d. Single Type-based Library
18. What is the difference between overloaded functions and overridden functions?
  - a. Overloading is a dynamic or run-time binding and Overriding is static or compile-time binding
  - b. Redefining a function in a friend class is called function overriding while Redefining a function in a derived class is called a overloaded function.
  - c. Overloading is a static or compile-time binding and Overriding is dynamic or run-time binding
  - d. Redefining a function in a friend class is called function overloading while Redefining a function in a derived class is called as overridden function.
19. Which one of the following is not a valid reserved keyword in C++
  - a. `Explicit`
  - b. `Public`
  - c. `Implicit`
  - d. `Private`
20. Each pass through a loop is called a/an
  - a. enumeration
  - b. iteration
  - c. culmination
  - d. pass through
21. Which of the following is true about `const` member functions?
  - a. `const` members can be invoked on both `const` as well as `nonconst` objects
  - b. `const` members can be invoked only on `const` objects and not on `nonconst` objects
  - c. `nonconst` members can be invoked on `const` objects as well as `nonconst` objects
  - d. none of the above
22. Which of the following relationship is known as inheritance relationship?
  - a. 'has-a' relationship
  - b. 'is-a' relationship
  - c. association relationship
  - d. none of the above



23. If class A is friend of class B and if class B is friend of class C, which of the following is true?
- Class C is friend of class A
  - Class A is friend of class C
  - Class A and Class C do not have any friend relationship
  - None of the above
24. A direct access file is:
- A file in which records are arranged in a way they are inserted in a file
  - A file in which records are arranged in a particular order
  - Files which are stored on a direct access storage medium
  - None of the above
25. Which of the following is not a component of file system
- Access method
  - Auxiliary storage management
  - Free integrity mechanism
  - None of the above
26. Seek time is
- time taken to retrieve a data
  - Time taken by read/write head mechanism to position itself over appropriate cylinder
  - Time taken by appropriate sector to come under read/write
  - None of the above
27. 'Prime area' in context of file system is defined as
- It is memory area created by operating system
  - It is an area into which data records are written
  - It is the main area of a web page
  - None of the above
28. In multi-list organization
- Records that have equivalent value for a given secondary index item are linked together to form a list.
  - Records are loaded in ordered sequence defined by collating sequence by content of the key
  - Records are directly accessed by record key field
  - None of the above
29. Which of the following is/are advantages of cellular partitioned structure:
- Simultaneous read operations can be overlapped
  - Search time is reduced
  - Both a & b
  - None of the above
30. \*ptr++ is equivalent to:
- ptr++
  - \*ptr
  - ++\*ptr
  - None of the above
31. The conditional compilation
- It is taken care of by the compiler
  - It is setting the compiler option conditionally
  - It is compiling a program based on a condition
  - none of above
32. Originally 'C' was developed as:
- System programming language
  - General purpose language
  - Data processing language
  - None of above
33. An inverted file
- Locates information about data in small files that are maintained apart from actual data record
  - A file which stores opposite records
  - A file which stores information about records of a system
  - None of above
34. Which of the following is not a file operation:
- Repositioning
  - Truncating
  - Appending
  - None of above
35. Latency time is:
- Time taken by read/write head mechanism to position itself over appropriate cylinder
  - Time taken to transfer a data from memory
  - Time taken by appropriate sector to come under read/write head
  - None of above
36. The two types of file structure existing in VSAM file are
- Key sequenced structure, entry sequenced structure
  - Key sequence structure, exit sequenced structure
  - Entry sequence structure, exit sequenced structure
  - None of above
37. How many copies of a class static member are shared between objects of the class?
- A copy of the static member is shared by all objects of a class
  - A copy is created only when at least one object is created from that class
  - A copy of the static member is created for each instantiation of the class
  - No memory is allocated for static members of a class
38. Which looping process checks the test condition at the end of the loop?
- for
  - while
  - do-while
  - no looping process checks the test condition at the end
39. The default access level assigned to members of a class is
- Private
  - Public
  - Protected
  - Needs to be assigned
40. Which of the following correctly describes the meaning of 'namespace' feature in C++?
- Namespaces refer to the memory space allocated for names used in a program
  - Namespaces refer to space between the names in a program
  - Namespaces refer to packing structure of classes in a program.
  - Namespaces provide facilities for organizing the names in a program to avoid name clashes.
41. Which of the following correctly describes the meaning of 'namespace' feature in C++?
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42. Which of the following language is not supported by C++?
- Exception Handling
  - Reflection
  - Operator Overloading
  - Namespaces
43. class derived: public base1, public base2 {} is an example of
- Polymorphic inheritance
  - Multilevel inheritance
  - Hierarchical inheritance
  - Multiple inheritance
44. Which of the following languages is a subset of C++ language?
- C language
  - Java Language
  - C# language
  - language



- 45. How do we declare an 'interface' class?**
- By making all the methods pure virtual in a class
  - By making all the methods abstract using the keyword 'abstract' in a class
  - By declaring the class as interface with the keyword 'interface'
  - It is not possible to create interface class in C++
- 46. How do we declare an abstract class?**
- By providing at least one pure virtual method (function signature followed by ==0;) in a class
  - By declaring at least one method abstract using the keyword 'abstract' in a class
  - By declaring the class abstract with the keyword 'abstract'
  - It is not possible to create abstract classes in C++
- 47. Which of the following is not an advantage of secondary memory**
- It is cost-effective
  - It has large storage capacity
  - It has highest speed
  - It is easily portable
- 48. What happens when a pointer is deleted twice?**
- It can abort the program
  - It can cause a failure
  - It can cause an error
  - It can cause a trap
- 49. Which of the following language feature is not an access specifier in C++?**
- public
  - private
  - C protected
  - internal
- 50. Expression C=i++ causes**
- Value of i assigned to C and then i incremented by 1
  - i to be incremented by 1 and then value of i assigned to C
  - Value of i assigned to C
  - i to be incremented by 1
- 51. The statement i++; is equivalent to**
- i = i + i;
  - i = i + 1;
  - i = i - 1;
  - i --;
- 52. In C language, a hexadecimal number is represented by writing**
- x
  - xo
  - ox
  - h
- 53. Which of the following library function below by default aborts the program?**
- Terminate()
  - end()
  - Abort()
  - exit()
- 54. If a member needs to have unique value for all the objects of that same class, declare the member as**
- Global variable outside class
  - Local variable inside constructor
  - Static variable inside class
  - Dynamic variable inside class
- 55. Value of ix+j, if i,j are integer type and ix long type would be**
- integer
  - float
  - long integer
  - double percision
- 56. Which of the following below can perform conversions between pointers to related classes?**
- A. cast\_static
  - B. dynamic\_cast
  - C. static\_cast
  - D. cast\_dynamic
- 57. How do we define a constructor?**
- a. x~() {}
  - B. X() {}~
  - C. X() ~{}
  - D. ~X() {}
- 58. Vtables**
- creates a static table per class
  - creates a static table per object
  - creates a dynamic table per class
  - creates a dynamic table per object
- 59. When class B is inherited from class A, what is the order in which the constructors of those classes are called**
- Class A first Class B next
  - Class B first Class A next
  - Class B's only as it is the child class
  - Class A's only as it is the parent class
- 60. Which of the following is the most general exception handler that catches exception of any type?**
- catch(std::exception)
  - catch(std::any\_exception)
  - catch(...)
  - catch()
- 61. Which of the following is the most general exception handler that catches exception of 'any type'?**
- catch(std::exception)
  - catch(std::any\_exception)
  - catch(...)
  - catch()
- 62. In a group of nested loops, which loop is executed the most number of times?**
- the outermost loop
  - the innermost loop
  - all loops are executed the same number of times
  - cannot be determined without knowing the size of the loops
- 63. What is the Difference between struct and class in terms of Access Modifier?**
- By default all the struct members are private while by default class members are public.
  - By default all the struct members are protected while by default class members are private.
  - By default all the struct members are public while by default class members are private.
  - By default all the struct members are public while by default class members are protected.
- 64. Inline functions are invoked at the time of**
- Run time
  - Compile time
  - Depends on how it is invoked
  - Both b and c above
- 65. What is shallow copy?**
- A shallow copy creates a copy of the dynamically allocated objects too.
  - A shallow copy just copies the values of the data as they are.
  - A shallow copy creates a copy of the statically allocated objects too
  - Both b and c above
- 66. What is deep copy?**
- A deep copy creates a copy of the dynamically allocated objects too.
  - A deep copy just copies the values of the data as they are.
  - A deep copy creates a copy of the statically allocated objects too
  - Both b and c above



67. Which of the following below is /are a valid iterator type?
- Input Iterator
  - Backward Iterator
  - Forward Iterator
  - Both a and c above
68. What defines a general set of operations that will be applied to various types of data?
- Template class
  - Function template
  - Class template
  - Both a and c above
69. Under which of the following circumstances, synchronization takes place?
- When the file is closed
  - When the buffer is empty
  - Explicitly, with manipulators
  - both a and c
70. Which of the following functions below can be used Allocate space for array in memory?
- calloc()
  - malloc()
  - Realloc()
  - both a and b
71. Statement `scanf("%d",80);`
- Assign an integer to variable i
  - Give an error message
  - Print the value of i
  - Assign an float to variable i
72. STL is based on which of the following programming paradigms?
- Structured Programming
  - Object Oriented Programming (OOP)
  - Functional Programming
  - Aspect Oriented Programming (AOP)
73. STL is based on which of the following programming paradigms?
- Structured Programming
  - Object Oriented Programming (OOP)
  - Functional Programming
  - Aspect Oriented Programming (AOP)
74. If there is more than one statement in the block of a for loop, which of the following must be placed at the beginning and the ending of the loop block?
- parentheses ( )
  - braces { }
  - brackets [ ].
  - arrows < >
75. Which of the following members do get inherited but become private members in child class
- Public
  - Private
  - Protected
  - All the above
76. Which looping process is best used when the number of iterations is known?
- for
  - while
  - do-while
  - all looping processes require that the iterations be known
77. In a C language '3' represents
- A digit
  - An integer
  - A character
  - A word
78. Which of the following is the most common way of implementing C++?
- C++ programs are directly compiled into native code by a compiler
  - C++ programs are first compiled to intermediate code by a compiler and then executed by a virtual machine
  - C++ programs are interpreted by an interpreter
  - A C++ editor directly compiles and executes the program
79. Which header file should we include for using `std::auto_ptr`?
- <memory>
  - <alloc>
  - <autoptr>
  - <smartptr>
80. Which of the following operators can be implemented as a nonmember operator?
- #NAME?
- () (function call operator)
  - [] (array access operator)
  - + (addition operator)
81. What is the implicit pointer that is passed as the first argument for nonstatic member functions?
- 'self' pointer
  - `std::auto_ptr` pointer
  - 'Myself' pointer
  - 'this' pointer
82. Which of the following operators can be overloaded?
- . (dot or member access operator)
  - & (address-of operator)
  - sizeof operator
  - ?: (conditional operator)
83. Which of the following operator cannot be overloaded?
- #NAME?
- == (equality operator)
  - > (row operator)
  - :: (cope resolution operator)
84. Which of the following operators below allow to define the member functions of a class outside the class?
- ::
  - ?
  - ?:
  - %
85. Which of the following is not a valid conditional inclusions in preprocessor directives
- #ifdef
  - #ifndef
  - #endif
  - #elif
86. Which of the following is not a standard exception built in C++.
- `std::bad_creat`
  - `std::bad_alloc`
  - `std::bad_cast`
  - `std::bad_typeid`
87. If a member needs to have unique value for all the objects of that same class, declare the member as
- Global variable outside class
  - Local variable inside constructor
  - Static variable inside class
  - Dynamic variable inside class
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- When the file is closed
  - When the buffer is empty
  - Explicitly, with manipulators
  - both a and c



89. Which of the following functions below can be used Allocate space for array in memory?

- a. calloc()
- b. malloc()
- c. Realloc()
- d. both a and b

90. Which of the following is not a valid conditional inclusions in preprocessor directives

- a. #ifdef
- b. #ifndef
- c. #endif
- d. #elif

91. Value of a in a = (b = 5, b + 5); is

- a. Junk value
- b. Syntax error
- c. 5
- d. 10

92. Minimum number of temporary variable needed to swap the contents of 2 variables is:

- a. 1
- b. 2
- c. 3
- d. 0

94. There is nothing like a virtual constructor of a class.

- a. False
- b. True

95. C++ provides facility to specify that the compiler should match function calls with the correct definition at the run time. This process is called as

- a. Static binding
- b. Dynamic Binding

96. The output of this program is

```
int
main () { cout << "Hello World!" return 0; }
```

- a. Hello World
- b. Syntax error
- c. 0
- d. Hello World!

97. The return value of the following code is

```
Class1& test(Class1 obj)
{
Class1 *ptr = new Class1();
.....
return ptr;
}
```

- a. object of Class1
- b. reference to ptr
- c. reference of Class1
- d. object pointed by ptr

98. The output of

```
{
int a = 5;
int b = 10;
cout << (a>b?a:b);
}
```

- a. 5
- b. 10
- c. Syntax error
- d. None of above

99. The output of this program is

```
int a = 10;
void main()
{
int a = 20;
cout << a << ::a;
}
```

- a. Syntax error
- b. 10 20
- c. 20 10
- d. 20 20

100. Observe following program and answer

```
class Example{
public: int a,b,c;
Example() {a=b=c=1;}
//Constructor 1
Example(int a){a = a; b = c = 1;}
//Constructor 2
Example(int a,int b){a = a; b = b; c = 1;}
//Constructor 3
Example(int a,int b,int c){ a = a; b = b; c = c;}
//Constructor 4
}
```

In the above example of constructor overloading, the following statement will call which constructor

```
Example obj = new Example (1,2,3);
```

- a. Constructor 2
- b. Constructor 4
- c. Constrcutor 1
- d. Type mismatch error



# Answers



1 - d	2 - b	3 - d	4 - a	5 - b	6 - d	7 - a	8 - b	9 - a	10 - d
11 - c	12 - d	13 - b	14 - d	15 - c	16 - a	17 - a	18 - b	19 - c	20 - c
21 - b	22 - a	23 - b	24 - c	25 - c	26 - d	27 - b	28 - b	29 - a	30 - c
31 - d	32 - c	33 - b	34 - a	35 - d	36 - c	37 - c	38 - a	39 - c	40 - a
41 - d	42 - d	43 - b	44 - d	45 - a	46 - a	47 - a	48 - c	49 - d	50 - d
51 - a	52 - b	53 - d	54 - a	55 - b	56 - c	57 - C	58 - D	59 - a	60 - a
61 - c	62 - c	63 - b	64 - c	65 - b	66 - b	67 - a	68 - d	69 - b	70 - d
71 - a	72 - a	73 - c	74 - c	75 - b	76 - c	77 - a	78 - c	79 - a	80 - c
81 - d	82 - d	83 - b	84 - d	85 - a	86 - b	87 - a	88 - b	89 - d	90 - a
91 - b	92 - d	93 - d	94 - a	95 - b	96 - b	97 - b	98 - b	99 - c	100 - b

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