

# MCQ Question Bank

## C++ Programming

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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?  
a. Class C is friend of class A  
b. Class A is friend of class C  
c. Class A and Class C do not have any friend relationship  
d. None of the above
24. A direct access file is:  
a. A file in which records are arranged in a way they are inserted in a file  
b. A file in which records are arranged in a particular order  
c. Files which are stored on a direct access storage medium  
d. None of the above
25. Which of the following is not a component of file system  
a. Access method  
b. Auxiliary storage management  
c. Free integrity mechanism  
d. None of the above
26. Seek time is  
a. time taken to retrieve a data  
b. Time taken by read/write head mechanism to position itself over appropriate cylinder  
c. Time taken by appropriate sector to come under read/write  
d. None of the above
27. 'Prime area' in context of file system is defined as  
a. It is memory area created by operating system  
b. It is an area into which data records are written  
c. It is the main area of a web page  
d. None of the above
28. In multi-list organization  
a. Records that have equivalent value for a given secondary index item are linked together to form a list.  
b. Records are loaded in ordered sequence defined by collating sequence by content of the key  
c. Records are directly accessed by record key field  
d. None of the above
29. Which of the following is/are advantages of cellular partitioned structure:  
a. Simultaneous read operations can be overlapped  
b. Search time is reduced  
c. Both a & b  
d. None of the above
30. \*ptr++ is equivalent to:  
a. ptr++  
b. \*ptr  
c. ++\*ptr  
d. None of the above
31. The conditional compilation  
a. It is taken care of by the compiler  
b. It is setting the compiler option conditionally  
c. It is compiling a program based on a condition  
d. none of above
32. Originally 'C' was developed as:  
a. System programming language  
b. General purpose language  
c. Data processing language  
d. None of above
33. An inverted file  
a. Locates information about data in small files that are maintained apart from actual data record  
b. A file which stores opposite records  
c. A file which stores information about records of a system  
d. None of above
34. Which of the following is not a file operation:  
a. Repositioning  
b. Truncating  
c. Appending  
d. None of above
35. Latency time is:  
a. Time taken by read/write head mechanism to position itself over appropriate cylinder  
b. Time taken to transfer a data from memory  
c. Time taken by appropriate sector to come under read/write head  
d. None of above
36. The two types of file structure existing in VSAM file are  
a. Key sequenced structure, entry sequenced structure  
b. Key sequence structure, exit sequenced structure  
c. Entry sequence structure, exit sequenced structure  
d. None of above
37. How many copies of a class static member are shared between objects of the class?  
a. A copy of the static member is shared by all objects of a class  
b. A copy is created only when at least one object is created from that class  
c. A copy of the static member is created for each instantiation of the class  
d. No memory is allocated for static members of a class
38. Which looping process checks the test condition at the end of the loop?  
a. for  
b. while  
c. do-while  
d. no looping process checks the test condition at the end
39. The default access level assigned to members of a class is  
a. Private  
b. Public  
c. Protected  
d. Needs to be assigned
40. Which of the following correctly describes the meaning of 'namespace' feature in C++?  
a. Namespaces refer to the memory space allocated for names used in a program  
b. Namespaces refer to space between the names in a program  
c. Namespaces refer to packing structure of classes in a program.  
d. Namespaces provide facilities for organizing the names in a program to avoid name clashes.
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c. Namespaces refer to space between the names in a program  
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42. Which of the following language is not supported by C++?  
a. Exception Handling  
b. Reflection  
c. Operator Overloading  
d. Namespaces
43. class derived: public base1, public base2 {} is an example of  
a. Polymorphic inheritance  
b. Multilevel inheritance  
c. Hierarchical inheritance  
d. Multiple inheritance
44. Which of the following languages is a subset of C++ language?  
a. C language  
b. Java Language  
c. C# language  
d. 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
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  - 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
88. 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



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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