

COURSE : DAC - FEB 2020

Subject : OOPS with C++

Time: 9 to 10

Date : 4.1.2021

Duration: 1 hour

1. Which of the following is the correct syntax of a pure virtual function in a C++ class?
 - a) virtual void testFunc();
 - b) abstract void testFunc();
 - c) virtual abstract void testFunc();
 - d) virtual void testFunc() = 0;
2. Which of the following is not a valid return type of a main method in C++? Select more than one.
 - a) void
 - b) int
 - c) float
 - d) char*
3. Select the right syntax of a C++ function of a class from the listings below:
 - a) virtual void getArray(int size, int* array);
 - b) virtual void getArray(int size, int[] array);
 - c) virtual void getArray(int size, []int array);
 - d) virtual int[] getArray(int size);
4. Which of the following escape sequence represents carriage return?
 - a) \r
 - b) \br
 - c) \n
 - d) <<
5. Which of the following is the insertion operator in C++?
 - a) >>
 - b) <<
 - c) cin
 - d) <<
6. What is size of an void in bytes?
 - a) 2
 - b) 0
 - c) 1
 - d) 4
7. What is output of below program?

```
{
int a = 5;
int b, c;
b = a++;
c = a;
cout<<a<<b<<c;
}
```

 - a) 555
 - b) 565
 - c) 665
 - d) 656

8. Which one is not a correct variable type in C++?
 - a) int
 - b) double
 - c) float
 - d) real
9. Which operation is used as Logical 'AND'
 - a) &
 - b) ||
 - c) &&
 - d) +
10. Reusability of code in C++ is achieved through ____
 - a) virtual
 - b) polymorphism
 - c) inheritance
 - d) abstraction
11. Which of the following is the correct way of declaring const in C++?
 - a) const
 - b) #define
 - c) enum
 - d) All the Above
12. Which feature of OOP allows to have a objects of one class in an another class?
 - a) Inheritance
 - b) Abstraction
 - c) Containment
 - d) Modularity.
13. Which of the following statements are not true about destructor?
 1. It is invoked when object goes out of the scope
 2. Like constructor, it can also have parameters
 3. It can be virtual
 4. It can be declared in private section
 5. It bears same name as that of the class and precedes Lambda sign
 - a) Only 2, 3, 5
 - b) Only 2, 3, 4
 - c) Only 2, 1, 5
 - d) Only 3, 4, 5
14. Can we have static constructors in C++?
 - a) YES
 - b) NO
 - c) YES if we have static members in the class.
 - d) YES if we have static block
15. How will the objects be created if we dont have a constructor in a class of C++?
 - a) The compiler will generate error
 - b) Error will occur at run-time
 - c) Compiler provides its default constructor to build the object
 - d) All variables of the class will automatically become garbage values.

16. Which of these is the most ideal way to initialize a member of a class in C++?
 - a) Inside a constructor
 - b) Outside the constructor by assigning values
 - c) Initialization List
 - d) All the above
17. What happens in the case of inheritance where both base and derived class are having constructors, when an object of derived class is created?
 - a) constructor of derived class will be invoked first
 - b) constructor of base class will be invoked first
 - c) constructor of derived class will be executed first followed by base class
 - d) constructor of base class will be executed first followed by derived class
18. If base class has constructor with arguments, then it is _____ for the derived class to have constructor and pass the arguments to base class constructor.
 - a) Optional
 - b) Mandatory
 - c) Compiler dependent
 - d) Error
19. Which operator has highest precedence in * / % ?
 - a) *
 - b) /
 - c) %
 - d) All have same precedence
20. Which of these is not a valid access specifier in C++?
 - a) internal
 - b) private
 - c) protected
 - d) public
21. Select True or False: "The public access specifier is used to protect important data"
 - a) TRUE
 - b) FALSE
22. The concept of a class deriving from 2 or more classes at the same level in C++ is:
 - a) Multi level Inheritance
 - b) Multiple Inheritance
 - c) Poly Inheritance
 - d) C++ does not allow 2 classes to be derived into a single class.
23. Which of the following statements is right about static variables in C++?
 - a) Static functions do not support polymorphism
 - b) Static data members cannot be accessed by non-static member functions
 - c) Static data members functions can access only static data members
 - d) Static data members functions can access both static and non-static data members

24. What will be the output of the following C++ code?

```
9
#include <iostream>
int const a = 9;
int main()
{
    std::cout << a;
    return 0;
}
```

- a) undefined
- b) Compile Error as const should come first before declaration
- c) Compile Error as const should be declared within a function.
- d) It will print 9

25. Which of the following operator cannot be overloaded in C++?

- a) +
- b) ?:
- c) -
- d) %

26. 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 promotes inheritance in a inheritance hierarchy.
- c) Virtual functions when accompanied by abstract keyword makes it a pure virtual function.
- d) Virtual functions are always protected.

27. Can a Constructor in C++ be virtual?

- a) YES
- b) NO.
- c) YES if its made as pure virtual function.
- d) NO only if they are derived classes.

28. Which of the following permits function overloading on c++?

- a) type
- b) number of arguments
- c) type & number of arguments
- d) number of objects

29. What will be the output of the following C++ code?

```
void print(int i)
{
    cout << i;
}
void print(double f)
{
    cout << f;
}
int main(void)
{
    print(3);
    print(345.263);
    return 0;
}
```

- a) 345.263
- b) 3345.263
- c) 345
- d) 345.266

30. Which of these is not true about pass by reference in C++?
- a) Changes to parameter values within the function also affect the original arguments
 - b) There is need to copy parameter values (i.e. less memory use)
 - c) There is no need to call constructors for parameters.
 - d) Reference args are void pointers.
31. Where does the program control transfer when the exception is raised by the Program?
- a) catch
 - b) handlers
 - c) throw
 - d) try
32. Which keyword is used to check exception in the block of code?
- a) catch
 - b) throw
 - c) try
 - d) handlers
33. Which header file is used to manipulate the string?
- a) iostream
 - b) iomanip
 - c) string
 - d) container
34. Which of the following is true about Dangling operator?
- a) A pointer pointing to NULL
 - b) Pointer pointing to memory location which has been freed
 - c) Pointer which is pointing to new location
 - d) Const Pointer which is tried to be modified
35. Which of the following containers does not allow duplicates in it?
- a) List
 - b) Set
 - c) Vector
 - d) Deque
36. From which of the STL data structures we can insert/remove data from anywhere?
- a) Vector
 - b) Deque
 - c) Stack
 - d) List
37. What is the correct way to initialize vector in C++?
- a) `vector<integer> vecOfInts;`
 - b) `vector int <vecOfInts>`
 - c) `vector(int) vecOfInts;`
 - d) `vector<int> vecOfInts;`
38. What is the best way to convert int to string according to C++ standard?
- a) `char *intStr = itoa(a); string str = string(intStr);`
 - b) `std::string s = std::to_string(42);`
 - c) `char stringNum[20]; int num=100; sprintf(stringNum,"%d",num);`
 - d) None of the above.

39. What kind of a function that is not within a class, but is allowed to access the class's private members.
- a) internal
 - b) public
 - c) friend
 - d) static
40. Which of these is the possibility of creating a Vtable by the compiler?
- a) Every Class has VTable when its created as abstract class
 - b) Class inherited from other Class
 - c) When a Class Overrides the function of Base class
 - d) Class has atleast one Virtual Function