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# Object Oriented Programming C++

## OOPs MCQs

### 1. What is an object in C++?

- a) A template for creating classes
- b) An instance of the class
- c) A method of the class
- d) A blueprint for the class

**Correct Answer: b) An object is an instance of the class.**

### 2. In which of the following is memory allocated for the objects?

- a) RAM
- b) ROM
- c) Hard disk
- d) Cache

**Correct Answer: a) Memory is allocated for the objects in RAM.**

### 3. On what basis is it determined when a variable comes into existence in memory?

- a) Variable type
- b) Storage class
- c) Variable scope
- d) Variable name

**Correct Answer: b) A variable that comes into existence in memory is determined by storage class.**

### 4. Select the following which shows the correct constructor.

- a) class\_name(int a, int b)
- b) ~class\_name()
- c) class\_name()
- d) class\_name(void)

**Correct Answer: c) class\_name() is the correct constructor.**

### 5. To access data members of a class, which of the following is used?

- a) Dot operator only
- b) Arrow operator only
- c) Dot or arrow operator, as required
- d) Neither dot nor arrow operator

**Correct Answer: c) To access data members of a class, Dot or arrow operator, as required.**

### 6. Total access specifiers in OOPS for C++ are?

- a) 1
- b) 2
- c) 3
- d) 4

**Correct Answer: c) There is a total of 3 access specifiers - private, public, protected.**

**7. Total instances of an abstract class that can be created?**

- a) Instances of abstract class cannot be made
- b) 1
- c) 2
- d) Multiple

**Correct Answer: a) Instances of abstract class cannot be made.**

**8. Total types of constructors in C++ are?**

- a) 1
- b) 2
- c) 3
- d) 4

**Correct Answer: c) There are three types of constructors in C++ - default constructor, parameterized constructor, and copy constructor.**

**9. Total types of polymorphism in C++ are?**

- a) 1
- b) 2
- c) 3
- d) 4

**Correct Answer: b) There is a total of 2 types of polymorphism in C++ - runtime polymorphism and compile-time polymorphism.**

**10. Under which pillar of OOPS do base class and derived class relationships come?**

- a) Encapsulation
- b) Inheritance
- c) Polymorphism
- d) Abstraction

**Correct Answer: b) Base class and derived class relationship come under inheritance.**

**11. Virtual function should be \_\_\_\_\_.**

- a) Public
- b) Private
- c) Protected
- d) Static

**Correct Answer: a) Virtual functions should be public.**

**12. Virtual functions should be defined in?**

- a) Derived class
- b) Base class
- c) Any class
- d) Friend class

**Correct Answer: b) Virtual functions should be defined in the base class.**

13. **What are the total catch blocks that can be used using a single try block?**

- a) 1
- b) 2
- c) As many as required
- d) None

**Correct Answer: c) We can use as many catch blocks as required using a single try block.**

14. **Identify the scope resolution operator.**

- a) .
- b) ::
- c) →
- d) :

**Correct Answer: b) :: is the scope resolution operator.**

15. **What is cout?**

- a) A class
- b) An object
- c) A function
- d) A variable

**Correct Answer: b) cout is an object.**

16. **What is the implicit return type of constructor?**

- a) void
- b) The class object in which it is defined
- c) int
- d) No return type

**Correct Answer: b) Implicit return type of constructor is the class object in which it is defined.**

17. **What is the number of parameters that a default constructor requires?**

- a) None
- b) One
- c) Two
- d) Three

**Correct Answer: a) Default constructor does not require any parameter.**

18. **What type of inheritance does single-level inheritance support?**

- a) Compile-time inheritance
- b) Runtime inheritance
- c) Multiple inheritance
- d) Hierarchical inheritance

**Correct Answer: b) Single-level inheritance supports Runtime inheritance.**

19. **When is the object created with a new keyword?**

- a) During run-time
- b) During compile-time
- c) During linking

- d) During loading

**Correct Answer: a) The object created with a new keyword during run-time.**

20. **Which of the following functions can be inherited from the base class?**

- a) All functions
- b) Only public functions
- c) Only protected functions
- d) None of the functions

**Correct Answer: d) None of the functions can be inherited from the base class.**

21. **Which of the following is not a type of inheritance?**

- a) Single
- b) Multiple
- c) Distributed
- d) Hierarchical

**Correct Answer: c) Distributed is not a type of inheritance.**

22. **Which of the following is not an OOP concept?**

- a) Encapsulation
- b) Compilation
- c) Inheritance
- d) Polymorphism

**Correct Answer: b) Compilation is not a concept of OOPS.**

23. **Which type of inheritance is implemented in the following code below?**

- a) Single
- b) Multilevel
- c) Hierarchical
- d) Multiple

**Correct Answer: d) Multiple inheritances are implemented in the above code.**

24. **Who developed object-oriented programming?**

- a) Dennis Ritchie
- b) Bjarne Stroustrup
- c) Alan Kay
- d) James Gosling

**Correct Answer: c) Object-oriented programming was developed by Alan Kay.**

25. **Why is a virtual function mainly used?**

- a) To achieve compile-time polymorphism
- b) To achieve abstraction
- c) To achieve encapsulation
- d) To achieve runtime polymorphism

**Correct Answer: d) Virtual function is mainly used to achieve runtime polymorphism.**

26. **Why is reusability a desirable feature?**

- a) It increases testing time
- b) It decreases the testing time

- c) It increases complexity
- d) It increases memory usage

**Correct Answer: b) Reusability is a desirable feature as it decreases the testing time.**

27. **Choose whether True or False: The constructor function can be constant.**

- a) True
- b) False

**Correct Answer: b) False. Constructor function cannot be constant.**

28. **Another name for the generic class is?**

- a) Template class
- b) Friend class
- c) Abstract class
- d) Base class

**Correct Answer: a) Generic class is also known as a template class.**

29. **By default, fields in a structure of a C program are?**

- a) Public
- b) Private
- c) Protected
- d) Static

**Correct Answer: a) Fields in the structure are public by default.**

30. **Choose the incorrect option below which is not a type of constructor.**

- a) Default constructor
- b) Friend constructor
- c) Parameterized constructor
- d) Copy constructor

**Correct Answer: b) Friend constructor is not a type of constructor.**

31. **Choose the option below for which instance of the class cannot be created.**

- a) Abstract class
- b) Derived class
- c) Friend class
- d) Static class

**Correct Answer: a) For the Abstract class, an instance of a class cannot be created.**

32. **Choose the option below which can show polymorphism.**

- a) Overloading <<
- b) Overloading >>
- c) Overloading []
- d) Overloading ()

**Correct Answer: a) Overloading << can show polymorphism.**

33. **Choose the option below which describes the overloading of functions.**

- a) Ad-hoc polymorphism
- b) Parametric polymorphism
- c) Template polymorphism

- d) Virtual polymorphism

**Correct Answer: a) Ad-hoc polymorphism describes the overloading of functions.**

**34. Choose the option below which is not a type of constructor.**

- a) Default constructor
- b) Friend constructor
- c) Parameterized constructor
- d) Copy constructor

**Correct Answer: b) Friend constructor is not a type of constructor.**

**35. Choose the option below which is required by objects in an Object-Oriented Program.**

- a) Attributes and names
- b) Attributes and behaviors
- c) State and names
- d) State and behaviors

**Correct Answer: b) Attributes and behaviors are required by objects in an Object-Oriented Program.**

**36. Which type of function can be called without an object?**

- a) Inline function
- b) Static member function
- c) Friend function
- d) Constant function

**Correct Answer: b) Static member functions can be called without an object.**

**37. Which among the following is not a member of the class?**

- a) Static function
- b) Friend function
- c) Const function
- d) Virtual function

**Correct Answer: b) Friend function is not a member of the class.**

**38. Which concept means waiting until runtime to determine which function to call?**

- a) Data hiding
- b) Dynamic casting
- c) Dynamic binding
- d) Data encapsulation

**Correct Answer: c) Dynamic binding means waiting until runtime to determine which function to call.**

**39. Which language does not support all four types of inheritance?**

- a) C++
- b) Java
- c) SmallTalk
- d) Kotlin

**Correct Answer: b) Java does not support all four types of inheritance.**

**40. Which of the following is not a type of inheritance?**

- a) Polymorphic inheritance
- b) Multiple inheritance

- c) Multilevel inheritance
- d) Hierarchical inheritance

**Correct Answer: a) Polymorphic inheritance is not a type of inheritance.**

**41. Which of the following is the mechanism to combine the data and functions?**

- a) Inheritance
- b) Polymorphism
- c) Encapsulation
- d) Abstraction

**Correct Answer: c) Encapsulation is the mechanism to combine the data and functions.**

**42. Which of the following is the type of abstract data type?**

- a) Primitive data type
- b) Integer data type
- c) Boolean data type
- d) Class data type

**Correct Answer: d) Class data type is the type of abstract data type.**

**43. Which operator among the following shows polymorphism?**

- a) <<
- b) >>
- c) []
- d) ()

**Correct Answer: a) << operator shows polymorphism.**

**44. Which operator is used to declare a friend function?**

- a) ^
- b) ::
- c) \*
- d) #

**Correct Answer: d) # operator is used to declare a friend function.**

**45. Which option below describes the usage of function overloading?**

- a) It increases the complexity of programs
- b) It decreases the readability of programs
- c) It enables several functions with the same name to be defined
- d) It restricts the program logic

**Correct Answer: c) Function overloading enables several functions with the same name to be defined.**

**46. Which option shows the correct relationship between a class and its object?**

- a) Classes are instances of objects
- b) Objects are instances of classes
- c) Classes are variables of objects
- d) Objects are variables of classes

**Correct Answer: b) Objects are instances of classes.**

**47. Which statement about constructors is true?**

- a) Constructors cannot be overloaded

- b) Constructors have a return type
- c) Constructors are called implicitly when an object is created
- d) Constructors can be virtual

**Correct Answer: c) Constructors are called implicitly when an object is created.**

**48. Which type of inheritance is supported by C++?**

- a) Single inheritance only
- b) Multiple inheritance only
- c) Both single and multiple inheritance
- d) No inheritance supported

**Correct Answer: c) Both single and multiple inheritance are supported by C++.**

**49. Which among the following is a function of the constructor?**

- a) Initialize the objects
- b) Delete the objects
- c) Overload the objects
- d) Copy the objects

**Correct Answer: a) The constructor initializes the objects.**

**50. Which access specifier is used as a default in a class definition?**

- a) Public
- b) Private
- c) Protected
- d) Friend

**Correct Answer: b) Private is the default access specifier used in a class definition.**