

C++ TEST-15 (CONSTRUCTORS & DESTRUCTORS)

Total points 50/50 ?

STUDENT NAME *

VIVA

✓ 1. What is a constructor in C++? *

1/1

- ☒ A) A special function that initializes objects
- ☐ B) A function that destroys objects
- ☐ C) A function that allocates memory
- ☐ D) A static function



✓ 2. What is a destructor in C++? *

1/1

- ☐ A) A function that creates objects
- ☒ B) A function that deletes objects and frees resources
- ☐ C) A constructor
- ☐ D) A virtual function



✓ 3. What is the name of the constructor function in a class? *

1/1

- ☒ A) Same as the class name
- ☐ B) Any name
- ☐ C) start()
- ☐ D) init()



✓ 4. What is the name of the destructor in a class? *

1/1

- ☒ A) Same as the class name preceded by ~
- ☐ B) Any name
- ☐ C) end()
- ☐ D) free()



✓ 5. Which of the following statements about constructors is true? *

1/1

- ☐ A) They can return a value
- ☒ B) They cannot have a return type
- ☐ C) They must return int
- ☐ D) They return void



✓ 6. Which keyword is used to define a constructor? *

1/1

- ☐ A) constructor
- ☐ B) init
- ☒ C) No keyword needed
- ☐ D) create



✓ 7. A constructor is called when: *

1/1

- ☐ A) An object is destroyed
- ☒ B) An object is created
- ☐ C) A function ends
- ☐ D) The program terminates



✓ 8. A destructor is called when: *

1/1

- ☐ A) An object is created
- ☒ B) An object goes out of scope or is deleted
- ☐ C) The constructor is called
- ☐ D) None



✓ 9. Can a constructor be virtual in C++? *

1/1

- ☐ A) Yes
- ☒ B) No



✓ 10. Can a destructor be virtual in C++? *

1/1

- ☒ A) Yes
- ☐ B) No



✓ 11. What is the purpose of a virtual destructor? *

1/1

- ☒ A) To ensure correct destruction of derived objects
- ☐ B) To call constructors
- ☐ C) To make a class abstract
- ☐ D) None



✓ 12. How many types of constructors are there in C++? *

1/1

- ☐ A) 2
- ☒ B) 3
- ☐ C) 4
- ☐ D) 5



✓ 13. Which of the following are types of constructors? *

1/1

- ☒ A) Default, Parameterized, Copy
- ☐ B) Public, Private, Protected
- ☐ C) Static, Virtual, Inline
- ☐ D) Friend, Pure, Derived



✓ 14. What is a default constructor? *

1/1

- ☒ A) A constructor with no parameters
- ☐ B) A constructor with parameters
- ☐ C) A constructor that copies objects
- ☐ D) A virtual constructor



✓ 15. What is a parameterized constructor? *

1/1

- ☒ A) A constructor that takes arguments
- ☐ B) A constructor with no arguments
- ☐ C) A constructor that returns a value
- ☐ D) A private constructor



✓ 16. What is a copy constructor? *

1/1

- ☒ A) Constructor that copies data from one object to another
- ☐ B) Constructor that deletes an object
- ☐ C) Constructor that initializes static data
- ☐ D) None



✓ 17. Syntax of copy constructor: *

1/1

- ☒ A) ClassName(ClassName &obj)
- ☐ B) ClassName(ClassName obj)
- ☐ C) ClassName(obj)
- ☐ D) ClassName = obj



✓ 18. What happens if we don't define a constructor? *

1/1

- ☒ A) Compiler provides a default one
- ☐ B) Error occurs
- ☐ C) Program crashes
- ☐ D) None



✓ 19. How many constructors can a class have? *

1/1

- ☐ A) One
- ☒ B) Multiple (Overloaded)
- ☐ C) Two only
- ☐ D) None



✓ 20. Which concept allows multiple constructors in a class? *

1/1

- ☒ A) Constructor overloading
- ☐ B) Constructor chaining
- ☐ C) Inheritance
- ☐ D) Polymorphism



✓ 21. What is the order of constructor execution in inheritance? *

1/1

- ☒ A) Base → Derived
- ☐ B) Derived → Base
- ☐ C) Random
- ☐ D) None



✓ 22. What is the order of destructor execution in inheritance? *

1/1

- ☐ A) Base → Derived
- ☒ B) Derived → Base
- ☐ C) Random
- ☐ D) None



✓ 23. Can constructors be overloaded? *

1/1

- ☒ A) Yes
- ☐ B) No



✓ 24. Can destructors be overloaded? *

1/1

- ☐ A) Yes
- ☒ B) No



✓ 25. Which constructor is invoked when an object is passed by value? *

1/1

- ☐ A) Default
- ☒ B) Copy
- ☐ C) Parameterized
- ☐ D) Virtual



✓ 26. Which constructor is called when a new object is created using another object of the same class?

*1/1

- ☒ A) Copy constructor
- ☐ B) Default constructor
- ☐ C) Parameterized constructor
- ☐ D) Virtual constructor



✓ 27. What is constructor initialization list used for? *

1/1

- ☒ A) To initialize class members before constructor body executes
- ☐ B) To delete variables
- ☐ C) To overload constructors
- ☐ D) To allocate heap memory



✓ 28. Which constructor is automatically called when no arguments are given? *1/1

- ☒ A) Default constructor
- ☐ B) Copy constructor
- ☐ C) Parameterized constructor
- ☐ D) Virtual constructor



✓ 29. When is a destructor called? * 1/1

- ☐ A) When object is created
- ☒ B) When object goes out of scope
- ☐ C) When main() starts
- ☐ D) Never



✓ 30. How many destructors can a class have? * 1/1

- ☒ A) One
- ☐ B) Two
- ☐ C) Many
- ☐ D) None



✓ 31. Can destructors be virtual? * 1/1

- ☒ A) Yes
- ☐ B) No



✓ 32. Can destructors be static? *

1/1

- ☐ A) Yes
- ☒ B) No



✓ 33. Which of the following is true for a destructor? *

1/1

- ☐ A) Can have parameters
- ☒ B) Cannot have parameters
- ☐ C) Can be overloaded
- ☐ D) Can return a value



✓ 34. Which of the following cannot be used inside a constructor? *

1/1

- ☒ A) return statement
- ☐ B) Assignment
- ☐ C) Function calls
- ☐ D) Loops



✓ 35. Which function is called first in a class object lifecycle? *

1/1

- ☒ A) Constructor
- ☐ B) Destructor
- ☐ C) Copy constructor
- ☐ D) None



✓ 36. Which operator triggers a destructor call explicitly? *

1/1

- ☒ A) delete
- ☐ B) new
- ☐ C) malloc
- ☐ D) create



✓ 37. Can constructors call other constructors? *

1/1

- ☒ A) Yes, using constructor delegation (C++11)
- ☐ B) No



✓ 38. Can a constructor call itself recursively? *

1/1

- ☒ A) No
- ☐ B) Yes



✓ 39. Can a destructor call another destructor? *

1/1

- ☒ A) No
- ☐ B) Yes



✓ **40. What happens if a class has pointer data members but no destructor?** *1/1

- ☒ A) Memory leak may occur
- ☐ B) Program runs normally
- ☐ C) Compiler fixes it
- ☐ D) None



✓ **41. A constructor declared in private section is mainly used for: *** 1/1

- ☒ A) Singleton design pattern
- ☐ B) Copying
- ☐ C) Deletion
- ☐ D) Multiple inheritance



✓ **42. Which constructor is used when using new keyword to create an object dynamically?** *1/1

- ☒ A) Default or parameterized constructor
- ☐ B) Copy constructor
- ☐ C) Virtual constructor
- ☐ D) Static constructor



✓ **43. Can destructors be explicitly called? *** 1/1

- ☒ A) Yes, but not recommended
- ☐ B) No



✓ 44. What is the symbol used for destructor declaration? *

1/1

- ☒ A) ~
- ☐ B) *
- ☐ C) &
- ☐ D) ^



✓ 45. What is a default copy constructor? *

1/1

- ☒ A) One automatically created by compiler
- ☐ B) User-defined only
- ☐ C) Always private
- ☐ D) None



✓ 46. Which statement is true about constructors and destructors? *

1/1

- ☒ A) Constructors allocate resources, destructors release them
- ☐ B) Constructors release resources
- ☐ C) Destructors create objects
- ☐ D) Both perform the same job



✓ 47. In multiple inheritance, which constructor executes first? *

1/1

- ☒ A) The leftmost base class constructor
- ☐ B) The rightmost base class constructor
- ☐ C) The derived class constructor
- ☐ D) Random order



✓ 48. Which of the following can be overloaded? *

1/1

- ☒ A) Constructor
- ☐ B) Destructor
- ☐ C) Both
- ☐ D) None



✓ 49. Can you call a destructor explicitly on a statically created object? *

1/1

- ☒ A) Yes, but leads to undefined behavior
- ☐ B) No, compiler prevents it



✓ 50. Which of the following statements is correct? *

1/1

- ☒ A) Destructor has no parameters and no return type
- ☐ B) Destructor can be overloaded
- ☐ C) Destructor can be virtual only in private
- ☐ D) Constructor cannot be overloaded



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