

University of Dhaka
Department of Computer Science and Engineering
2nd Year 1st Semester Class Test 1 Exam, 2025
CSE 2103 : Object Oriented Design and Programming (3 Credits)

Total Marks: 20 x 0.5 marks = 10 marks

Time: 10 minutes

- 1. Object-oriented programming emphasizes: [CO1]**
 - a) Data over procedures
 - b) Procedures over data
 - c) Global functions
 - d) Machine-specific code
- 2. The bottom-up approach to program design is followed in: [CO1]**
 - a) Procedure-oriented programming
 - b) Object-oriented programming
 - c) Assembly programming
 - d) Structured programming
- 3. The wrapping of data and methods into a single unit is called: [CO1]**
 - a) Abstraction
 - b) Encapsulation
 - c) Polymorphism
 - d) Inheritance
- 4. Which OOP concept enables code reusability by allowing one class to acquire another's properties? [CO1]**
 - a) Encapsulation
 - b) Inheritance
 - c) Polymorphism
 - d) Dynamic binding

5. In OOP, late binding (runtime decision of method call) is known as: [CO1]
 - a) Static binding
 - b) Dynamic binding
 - c) Compile-time linking
 - d) Variable hiding
6. Which access specifier is mandatory for Java's main() method? [CO1]
 - a) private
 - b) protected
 - c) default
 - d) public
7. Which Java environment component translates bytecode into machine code? [CO1]
 - a) Compiler
 - b) JDK
 - c) JVM/Interpreter
 - d) JRE
8. In Java, which keyword is used to allocate memory for an object? [CO1]
 - a) malloc
 - b) alloc
 - c) new
 - d) this
9. If an object reference variable does not currently point to any object, it is called: [CO1]
 - a) Garbage
 - b) Null reference
 - c) Finalized object
 - d) Dangling pointer

10. Which statement is TRUE about Java instance variables? [CO1]

- a) Local variables are always initialized to zero
- b) Instance variables are automatically initialized to default values
- c) Instance variables must always be initialized by the programmer
- d) Instance variables cannot be private

11. Which method in Java is automatically called when an object is created? [CO2]

- a) finalize()
- b) constructor
- c) main()
- d) init()

12. Which type of constructor takes no arguments? [CO2]

- a) Default constructor
- b) Parameterized constructor
- c) Overloaded constructor
- d) Abstract constructor

13. Which keyword is used inside a constructor to call the parent's constructor? [CO2]

- a) this
- b) super
- c) parent
- d) base

14. Which access modifier allows subclass access but not outside-package classes? [CO2]

- a) public
- b) private
- c) protected

d) default

15. Which keyword refers to the current object in Java? [CO2]

- a) self
- b) current
- c) this
- d) object

16. Which of the following is used to prevent method overriding? [CO2]

- a) static
- b) final
- c) abstract
- d) default

17. When a method in a subclass has the same signature as in the parent, it is: [CO2]

- a) Overloading
- b) Overriding
- c) Hiding
- d) Binding

18. When two or more methods in the same class have the same name but different parameters, it is: [CO2]

- a) Overriding
- b) Dynamic dispatch
- c) Overloading
- d) Encapsulation

19. Which concept allows calling the correct overridden method at runtime? [CO2]

- a) Method overloading
- b) Dynamic method dispatch
- c) Static binding

d) Compile-time polymorphism

20. An abstract class in Java: [CO2]

- a) Cannot have constructors
- b) Cannot be instantiated
- c) Must contain only abstract methods
- d) Cannot have variables

Answers:

1. a) Data over procedures
2. b) Object-oriented programming
3. b) Encapsulation
4. b) Inheritance
5. b) Dynamic binding
6. d) public
7. c) JVM/Interpreter
8. c) new
9. b) Null reference
10. b) Instance variables are automatically initialized to default values
11. b) constructor
12. a) Default constructor
13. b) super
14. c) protected
15. c) this
16. b) final
17. b) Overriding
18. c) Overloading
19. b) Dynamic method dispatch
20. b) Cannot be instantiated