

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