



Seat No. : \_\_\_\_\_

**NN-107**

**November-2025**

**B.S. (B.C.A.), Sem.-III**

**DSC-C-BCA-232 : Object Oriented Concepts with Java**

**(As per NEP 2020)**

**Time : 2:00 Hours]**

**[Max. Marks : 50**

1. (1) Write a short-note on JVM. 5
- (2) Explain principles of object-oriented language in brief. 5
- OR**
1. (1) What is identifier ? Explain rules for naming the identifier and naming convention used in Java. 5
- (2) Explain for loop and for-each loop with example. 5
2. (1) Explain how to create and initialize a two-dimensional Array in brief. 5
- (2) Explain, in which situation we can use the super keyword. Also explain how to invoke the constructors of the superclass using super keyword. 5
- OR**
2. (1) List out the Types of Inheritance. Explain how to derive a class using extends keyword with example. 5
- (2) Give the difference between Interface and Abstract Class. 5
3. (1) What is Object class ? Explain the methods of the Java.lang.Object Class. 5
- (2) Explain how strings can be instantiated in Java. Explain any 3 methods of string Class with example. 5
- OR**
3. (1) Explain Autoboxing and Unboxing of Wrappers in brief. 5
- (2) What is package ? How to create a package in Java ? List out the Commonly Used Predefined Packages used in Java. 5
4. (1) Explain the throw and throws keyword used in exception handling with example. 5
- (2) Explain different ways to create a new thread in Java with example. 5
- OR**
4. (1) Explain thread priority in brief. 5
- (2) How to create a user defined exception in Java ? Explain with example. 5

5. Do as directed. (Any **Ten**)

**10**

- (1) A thread dies naturally when it exits the run() method. (True/False)
  - (2) In \_\_\_\_\_ state thread is ready for execution by the JVM.
    - (a) Runnable
    - (b) Run
    - (c) Active
    - (d) Start
  - (3) \_\_\_\_\_ exceptions are not checked by the compiler.
    - (a) Checked
    - (b) Unchecked
  - (4) Which keyword is used for accessing the features of a package ?
    - (a) expert
    - (b) package
    - (c) import
    - (d) extends
  - (5) StringBuffer class is used for representing changing strings. (True/False)
  - (6) Wrapper objects are immutable. (True/False)
  - (7) Which keyword is used to prevent inheritance ?
    - (a) final
    - (b) this
    - (c) super
    - (d) Final
  - (8) An interface can inherit another interface using the implements keyword. (True/False)
  - (9) Given a one-dimensional array 'xyz', what is the correct way of getting its number of elements ?
    - (a) xyz.length
    - (b) xyz.length-1
    - (c) xyz.size
    - (d) xyz.size-1
  - (10) A constructor cannot be abstract. (True/False)
  - (11) The explicit conversion is known as \_\_\_\_\_ conversions.
    - (a) widening
    - (b) narrowing
  - (12) In Java, the name of .class file will match exactly with the same name of the source file. (True/False)
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