

V (Printed Pages 4)
(21225) Roll No.
B.Sc. (Com.Sc.) - V Sem.

NP-3610
B.Sc. (Computer Science)
Examination, Dec.-2025

WEB DESIGNING WITH JAVA
PROGRAMMING
(BCS-503)

Time : 3 Hours] [Maximum Marks : 75

Note : Attempt questions from **all** sections as per instructions.

Section-A

Note : Answer **all** questions. Each questions carries **3** marks. $3 \times 5 = 15$

1. Write two uses of 'this' keyword in Java.
2. What is Inheritance. Give one real life example?

P.T.O.

3. What is Garbage collection in Java?
4. Write a few differences between Java and C++.
5. Write a Java program to find the largest number in one dimensional array.

Section-B

Note : Attempt any **two** questions.

$2 \times 7.5 = 15$

6. What is an abstract class? Write a Simple program where an abstract class 'shape' has an abstract method 'area()'. Create two subclasses 'circle' and 'Rectangle' that implement 'area'.
7. What are Java Beans? Write two differences between Java Beans and Enterprise Java Beans (EJB).
8. Explain any four principles of good web design (usability, GUI) with examples.

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Section-C

Note : Attempt any **three** questions.

3×15=45

9. (a) Write introduce of an exception.
Draw simple diagram of exception hierarchy.
- (b) Write a Java Program using try-catch-finally to handle division by zero.
- (c) How APIs give strength in Java Programming? Explain in brief.
10. (a) List the steps to connect Java with a database
- (b) Write a simple program to insert a record into a table student.
- (c) What are the rules for defining and implementing an interface in Java. Give one example.
11. (a) Write difference between 'Tabbed Pane' and 'Split Pane'.
- (b) Write a program that creates a small swing window with one label, one text field, one button. When user clicks on the button, your roll number should be shown as text in the label.
12. (a) What is a collection in Java. Name any three types.
- (b) Write a program using 'Array List' to store names of 5 students and display these names.
- (c) Explain in brief about Java Data persistence API (JDBA) with two uses.
13. (a) As per your opinion, write the web designing process.
- (b) What are GUI conventions and web conventions. Give suitable examples.
- (c) How can a website be tested and evaluated.