

**II Semester B.C.A. Examination, June/July 2026
(SEP 2024-25)**

24 BCA 22 : OBJECT ORIENTED PROGRAMMING USING JAVA

Max. Marks : 80

Time : 3 Hours

Instruction : Answer all the questions.

SECTION - A

(2×8=16)

I. Answer any eight of the following :

- 1) Define class and object in Java.
- 2) What are the features of Java ?
- 3) Define procedure-oriented and object-oriented programming.
- 4) What is constructor ?
- 5) What is the use of instance of operator ?
- 6) Define wrapper classes with an example.
- 7) What is type casting in Java ?
- 8) What is the difference between String and StringBuffer ?
- 9) What are visibility modifiers in Java ?
- 10) What is an exception ? Give an example.

SECTION - B

(6×4=24)

II. Answer any four of the following :

- 11) Explain control structures in Java with examples.
- 12) Describe different types of inheritance in Java with suitable examples.
- 13) Explain interface in Java and its importance with an example.
- 14) Illustrate exception handling using try-catch-finally with a program.
- 15) Explain the life cycle of a thread with a diagram.
- 16) Describe different types of I/O streams in Java.



SECTION – C

III. Answer any five of the following :

(8×5=40)

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| 17) a) Explain the structure of a Java program with an example. | 4 |
| b) Describe any four methods of String class. | 4 |
| 18) a) Explain different types of loops in Java with examples. | 4 |
| b) Write a Java program to display all prime numbers between two limits. | 4 |
| 19) a) What are packages in Java ? Explain their advantages. | 4 |
| b) Explain how to create and import a user-defined package. | 4 |
| 20) a) Explain any two layout managers in Java with examples. | 4 |
| b) Describe the use of following GUI components : buttons, labels and text fields. | 4 |
| 21) a) Explain the applet life cycle methods with their significance. | 5 |
| b) Write a simple Java applet to display "Welcome to Java". | 3 |
| 22) a) Differentiate between multithreading and multitasking. | 4 |
| b) Explain thread synchronization in Java with an example. | 4 |
| 23) a) What is generic programming in Java ? Explain with an example. | 4 |
| b) Discuss the importance of JavaBeans in Java programming. | 4 |

SECTION – B

(8×4=32)

II. Answer any four of the following :

- | | |
|---|---|
| 11) Explain control structures in Java with examples. | 4 |
| 12) Describe different types of inheritance in Java with suitable examples. | 4 |
| 13) Explain interface in Java and its importance with an example. | 4 |
| 14) Illustrate exception handling using try-catch-finally with a program. | 4 |
| 15) Explain the life cycle of a thread with a diagram. | 4 |
| 16) Describe different types of IO streams in Java. | 4 |