



Progressive Education Society's
Modern College of Arts, Science & Commerce Ganeshkhind, Pune – 16 (Autonomous)
End Semester Examination: OCT / NOV 2024
Faculty: Science and Technology

Program: BCA **Code:** BCASc08

Semester: V

SET: A

Program (Specific): BCA (Science)

Course Type: DSE

Class: TYBCA (Science)

Max.Marks: 70

Name of the Course: Advanced Java

Course Code: 24-BCA-351

Time: 3Hr

Paper: I

Instructions to the candidate:

- 1) *There are 4 sections in the question paper. Write each section on separate page.*
- 2) *All Sections are compulsory.*
- 3) *Figures to the right indicate full marks.*
- 4) *Draw a well labelled diagram wherever necessary.*

SECTION: A

Q1) Attempt the following

A) Choose the correct option

5*1=5

1. The present size of an object is obtained by _____ method of ArrayList class.
a) size() b) length() c) index() d) capacity()
2. Which attribute uniquely identification element?
a) ID b) Class c) Name d) Scope
3. To check if a thread is still running or not we use _____ method.
a) run() b) alive() c) isAlive() d) isRunning()
4. Abstract Window Toolkit (AWT) consists of _____ method.
a) display() b) paint() c) read() d) draw()
5. Thin driver is also known as _____.
a) Type 3 Driver b) Type 2 Driver c) Type 1 Driver d) Type 4 Driver

B) Attempt the following

5*1=5

1. List various ways to traverse the collection elements.
2. State the use of sleep() in Thread.
3. List Interfaces of JDBC API.
4. Define Servlet.
5. State the use of public void paint(Graphics g).

SECTION: B

Q2) Answer the following (any 5)

5*3=15

1. Differentiate between sleep() and interrupt().
2. What are advantages of JSP over servlet?
3. Write a note on session.
4. Define the following:
 - i. IP Address
 - ii. Protocol
 - iii. Port Number
5. State the use of public abstract void drawString(String str, int x, int y) in applet.
6. Discuss Native API java driver with a help of diagram.

SECTION: C

Q3) Answer the following (any 5)

5*4=20

1. List and explain five methods of servlet interface.
2. Explain Synchronization with an example.
3. Explain JSP page directive.
4. Difference between Iterator and ListIterator
5. Write a note on HttpURLConnection class methods
6. Write a servlet which counts how many times a user has visited a web page. If the user is visiting the page for the first time, display a welcome message. If the user is revisiting the page, display the number of times visited. (Use cookies).
7. Write a JDBC to create a student table with fields roll number, name, percentage. Insert values in the table. Display all the details of the student table in a tabular format on the screen.

SECTION: D

Q4) Answer the following (any 5)

5*5=25

1. Explain lifecycle of JSP
2. Explain steps for Java Database Connectivity.
3. Explain steps to create spring application.
4. Write a java program to accept 'n' names from user store them into Array List, sort them in ascending order and display it.
5. Write a java program to create multiple threads.
6. Write a jsp script to check the given number is prime or not. Display the result in blue color.
7. Write an applet application in Java to display an image.
