PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION MAY 2025
(Sixth Semester)

Branch – MATHEMATICS WITH COMPUTER APPLICATIONS

JAVA PROGRAMMING

Time: Three Hours   Maximum: 50 Marks

SECTION-A (5 Marks)
Answer ALL questions
ALL questions carry EQUAL marks   (5 x 1 = 5)

1   Which of the following is a valid keyword in Java?
    (i) main   (ii) String
    (iii) volatile   (iv) system

2   What does the `join()` method of a thread do?
    (i) Ends a thread   (ii) Waits for a thread to die
    (iii) Starts a thread   (iv) Suspends a thread

3   State the purpose of the `String Buffer` class in Java
    (i) To create immutable strings   (ii) To create mutable strings
    (iii) To create string array   (iv) To create string pools

4   Choose the class is used for networking in Java
    (i) Socket   (ii) File
    (iii) Input Stream   (iv) Applet

5   Name the method is used to draw a rectangle in AWT
    (i) drawRect()   (ii) drawRectangle()
    (iii) drawSquare()   (iv) drawShape()

SECTION - B (15 Marks)
Answer ALL Questions
ALL Questions Carry EQUAL Marks   (5 x 3 = 15)

6   a   State about the history and evolution of the Java programming language.
                              OR
    b   How arrays are declared and initialized in Java? Provide an example.

7   a   Explain the concept of inheritance in Java.
                              OR
    b   Describe exception handling in Java.

8   a   Compare between `String` and `StringBuilder` in Java.
                              OR
    b   Discuss about the role of the `java.lang` package in Java.

9   a   Summarise the usage of the InputStream and OutputStream classes in java.io
        Package.
                              OR
    b   Explain about the Socket class facilitate networking in Java.

10 a   Analyze the purpose and usage of the Frame class in AWT.
                              OR
    b   State about the Flow Layout manager arrange components in a container.

SECTION -C (30 Marks)
Answer ALL questions
ALL questions carry EQUAL Marks   (5 x 6 = 30)

11 a   Discuss about the various control statements available in Java and provide examples for each.

OR

    b   Summarise the concept of methods in Java. Discuss how to declare, define, and invoke methods, and provide examples.

12 a   Point out the different ways of implementing multithreading in Java. Include code examples for each.

OR

    b   Elucidate about the I/O package in Java. How are input and output handled? Provide examples.

13 a   Discuss the Collection Framework in Java, including its core interfaces and classes. Provide examples.

OR

    b   Enumerate the importance of the `String` class and its methods in Java.

14 a   Outline about the different types of streams available in the java.io package and their uses.

OR

    b   Survey the process of handling mouse events in a Java application.

15 a   Distinguish the different types of layout managers available in AWT and their use cases.

OR

    b   Analyze about the AWT controls, and how are they used to build user interfaces.

Z-Z-Z   END