

**PSG COLLEGE OF ARTS & SCIENCE**  
(AUTONOMOUS)

**MSc(SS) DEGREE EXAMINATION DECEMBER 2023**  
(Third Semester)

Branch – **SOFTWARE SYSTEMS** (five year Integrated)

**PROGRAMMING IN JAVA**

Time: Three Hours

Maximum: 50 Marks

**SECTION-A (5 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** marks (5 x 1 = 5)

- 1 \_\_\_\_\_ is a feature that allows one interface to be used for a general class of actions.  
i) Class      ii) Inheritance      iii) Polymorphism      iv) Interface
- 2 The term \_\_\_\_\_ refers to a class's direct ancestor or to any of its ascendant classes  
i) sub class    ii) super class      iii) class hierarchy      iv) class instance
- 3 \_\_\_\_\_ code segments must be implemented for an event handler.  
i) One      ii) Two      iii) Three      iv) Four
- 4 A class is declared by use of the \_\_\_\_\_ keyword.  
i) object      ii) class      iii) instance      iv) method
- 5 The new operator dynamically allocates \_\_\_\_\_ for an object and returns a reference to it.  
i) classes      ii) variables      iii) memory      iv) devices

**SECTION - B (15 Marks)**

Answer **ALL** Questions

**ALL** Questions Carry **EQUAL** Marks (5 x 3 = 15)

- 6 a Classify the bitwise operators used in Java with example.  
OR  
b Elaborate the different types of constructor.
- 7 a What is a package? How to create a package?  
OR  
b Illustrate the 'try' and 'catch' statement with example program.
- 8 a State the basic concept of Inter Thread Communication.  
OR  
b Outline the methods used to synchronize threads.
- 9 a How do applets differ from application programs in java? Give syntax.  
OR  
b Discuss the advantages of JavaScripts.
- 10 a Show the use of static import statement in J2SE.  
OR  
b Determine the enhanced for loop statement in J2SE.

Cont...

**SECTION -C (30 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** Marks (5 x 6 = 30)

- 11 a Compare and contrast overriding and overloading a method.  
OR  
b Enumerate the basic data types used in java with suitable example.
- 12 a Discuss the various forms of implementing interfaces with examples.  
OR  
b Write a java program to find the sum of the digits of a given integer.
- 13 a How to create a thread? Describe.  
OR  
b Analyze the types of methods in thread priorities.
- 14 a Discover the different types of stream classes with example.  
OR  
b Write a java applet program that simulates a traffic light.
- 15 a Elucidate the difference between auto boxing and auto unboxing.  
OR  
b Write a java program to count the number of vowels in the given string.

Z-Z-Z

END