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BACHELOR OF COMPUTER APPLICATIONS (B.C.A.)
SPECIALIZATION IN CYBER SECURITY (CS)

EXAMINATION : DECEMBER- 2023

SEMESTER - IV

Sub: Java / Java Programming

(BCA- 440-18/BCA-440-20/BCA-CS-440-20)

Date : 19/12/2023	Total Marks : 60	Time: 2.00 pm To 4.30 pm

Instructions:
1. *All questions are compulsory unless and otherwise stated.*
2. *Bold figures to the right of every question are the maximum marks for that question.*
3. *Candidates are advised to attempt questions in order.*
4. *Answers written illegibly are likely to be marked zero.*
5. *Use of scientific calculators, Log tables, Mollier Charts is allowed.*
6. *Draw neat and labeled diagrams wherever necessary.*

Q.1. **Fill in the blanks.** **(5)**

1. _____ is the technique of binding both data and functions together
   a) Class   b) Array
   c) Encapsulation   d)) None
2. The full form of IDE is _____.
   a) integrated deployment environment   b)integrateddevelopment environment
   c)) integrated data entity   d) imported development environment
3. JVM is used to convert _____ into machine code
   a) text   b) arrayList
   c) Byte Code   d) instructions
4. The java program's bugs are found and fixed using the …………. .
   a) JVM   b) JRE
   c) Java Debugger   d) JDK
5. In Java, ……… keyword is used for to call the constructor of the parent class
   a) super   b) byte
   c) enum   d) abstract

Q.2. **State True/False.** **(5)**
1. java. Lang packages contain string functions.
2. Interfaces can be instantiated in Java
3. The smallest meaningful element of a Java program is called a Token
4. Streams is used to perform all input & output operations in Java.
5. Polymorphism allows a function to behave differently for different objects.

Q.3. **Answer the following. (Solve any 5)** **(10)**
1. Why is Java a platform independent language?
2. Define Inheritance. List types of inheritance in Java.
3. Write a note on Scanner class in java.
4. Explain different arithmetic operators in Java.
5. What is the use of this keyword in java?
6. List any 4 features of Java.

Q. 4. **Answer the following in detail. (Solve any 6)** **(30)**
1. Write any two access specifiers with suitable example
2. What is Exception? Explain try, catch & finally block
3. Write a Java program that accept array elements print the average of all elements.
4. What is runnable Interface? Give example to create a thread using Runnable interface.
5. What is a constructor? Explain different types of constructors in Java.
6. Java Program to Find Area of Square, Rectangle and Circle using Method Overloading.
7. Explain BufferedReader class in Java.

Q. 5. **Answer the following in detail. (Solve any 1)** **(10)**
1. Define Java Abstraction. Explain Abstract classes and methods with example.
2. What is Java Swing? Explain any five Swing components used in Java with example.

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