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RV COLLEGE OF ENGINEERING®

(An Autonomous Institution affiliated to VTU)

I / II Semester B. E. Regular / Supplementary Examinations Feb-2024

Common to all programs

BASICS OF JAVA PROGRAMMING (ELECTIVE)

Time: 03 Hours ***Maximum Marks: 100***

Instructions to candidates:

1. Answer all questions from Part A. Part A questions should be answered in first three pages of the answer book only.
2. Answer SIX full questions from Part B. In Part B question numbers 2 and 11 are compulsory. Answer any one full question from 3 and 4, 5 and 6, 7 and 8 & 9 and 10.

PART-A

1	1.1	The process of defining a method in a subclass having same name and type signature as a method in its superclass is called as _____.	01
	1.2	Mention the output of the following Java code: *class inc* { *public static void main(String args* []) { *int a* = 4; *System.out.print*(++ *a* * 8); } }	01
	1.3	Write two uses of 'this' keyword.	02
	1.4	_____ is a superclass of every class in Java.	01
	1.5	List two ways of creating threads in Java.	02
	1.6	_____ keyword is used for the block to be examined of exceptions.	01
	1.7	Which method of class string is used to obtain a length of string object?	01
	1.8	_____ is a mechanism for naming a visibility control of a class and its content.	01

PART-B

2	a	Explain Encapsulation and abstraction in Java.	06
	b	How $1-D$ and $2-D$ arrays are declared and initialized in Java? Explain with suitable examples.	08
3	a	Explain class with an example program to declare and create an object of the class declared which contain few data members and member functions.	07
	b	What is method overloading? Explain with a program to demonstrate it.	07
		OR	

4	a	Explain the following in Java: i) Constructor ii) Finalize method.	07
	b	Demonstrate the use of break and continue statement in Java.	07
5	a	Explain abstract class and abstract method in Java.	06
	b	What are the uses of final keyword in Java? Demonstrate each use with an example program.	08
		OR	
6	a	Explain all the uses of super keyword in Java with example program.	06
	b	With an example program demonstrate the use of inheritance and how the constructors are called in inheritance.	08
7	a	Define package. Explain how to create and import packages in java with an example.	07
	b	With the help of Java code snippet explain interfaces in Java.	07
		OR	
8	a	Develop Java program and explain how to handle multiple catch blocks for a nested try block.	07
	b	How packages are different from interfaces? Explain with an example.	07
9	a	What is multithreading? In how many ways Java Implements multithreading? Explain one of these ways with suitable example.	07
	b	Explain with example, suspending and resuming threads in java.	07
		OR	
10	a	Explain the concept of thread priorities with the help of Java code snippet.	07
	b	With a neat sketch, Explain the life cycle of a thread in Java.	07
		LAB COMPONENT	
11	a	Develop a Java program top create a string object and to show the working of following methods by writing syntax, explanation and example. i) chatAt() ii) concat() iii) equals() iv) indexOf() v) replace()	10
	b	Develop a Java program to create a class for complex number which contain default constructor, constructor with arguments, methods to perform addition, subtraction. Demonstrate the working of complex number class by creating required number of objects.	10