



Continuous Assessment Test – I

Programme Name & Branch: B.Tech (CSE)

Course Name & Code: CSE1007 & Java Programming

Class Number: VL 2020210504076

Slot: C1+ TC1 Exam Duration: 60 Mins

Maximum Marks: 30

General instruction(s):

printed material may be permitted

Answer ALL Questions (3 * 10 = 30 Marks)		
S.No.	Question	Course Outcome (CO)
1. (a)	There are 12 10 and 8 instructional days for a particular course before CAT-1, CAT-2 and Termend examinations respectively. Declare a 2-dimensional jagged array with 3 rows to store the entire attendance details of a single student in that course, where in the first row must have 12 elements, second row- 10 elements and third row- 8 elements. Assuming the array elements contain any of the 2 values '1' / '0' denoting Present/Absent, Write a Java program to evaluate the attendance percentage for his CAT-1, CAT-2 and Term-end period (all the two terms taken together). Use enhanced-for loops to traverse the array.	CO1
1(b)	Write a Java program with class definition for 'Employee' with name, emp-id, and salary and required methods as members of the class. Create an array of objects of 'emp' for 'n' number of employees in VIT. Write a Java program to display the name and emp-id of employees who have salary less than INR100000.	CO1

2. (a)	<p>Create a package named Pack1, with a class 'Words'. Create another package Pack2 inside Pack1 with a class 'Length' in it.</p> <p>a. In the 'Words' class, define a method countNumWords() that will count the number of words in the given text.</p> <p>b. In the 'Length' class, define a method strLength() to find the length of the string without using length() function.</p> <p>c. Define the main class and import the packages and call the methods under the classes Words, Length respectively.</p>	CO2
2(b)	<p>(i)Write a Java program to find the sum of the elements of a two dimensional array of integers and floating point numbers with method overloading. (5)</p> <p>(ii)Find the output of the following code. Draw the memory diagram and justify your answer.</p> <pre> public class StrAddress { public static void main(String args[]) { String s="hello"; String s1="hello"; String s2=new String("hello"); String s3=new String("hello"); if(s==s1) System.out.println("S and S1 are Equal"); else System.out.println("S and S1 are Not Equal"); if(s==s2) System.out.println("S and S2 are Equal"); else System.out.println("S and S2 are Not Equal"); if(s3==s2) System.out.println("S3 and S2 are Equal"); else </pre>	CO2

	<pre> System.out.println("S3 and S2 are Not Equal"); } } (5) </pre>	
3.(a)	<p>Consider an example of declaring the examination result. Design three classes: Student, Exam and Result. The Student class has data members such as registration number, name etc. Create a class Exam by inheriting the student class. The Exam class adds data members representing the marks scored in six subjects. Derive class Result from the Exam class and it has own data members such as total_marks. Write an interactive program in Java to model this relationship. What type of inheritance this model belongs to?</p>	CO3
3. (b)	<p>Write a Java program to demonstrate multiple inheritance with two interfaces and a class with main class to find sum of n numbers and factorial of a given number.</p>	CO3