Reg. No.:

Name   :

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Term End Examinations (TEE), January 2021

Programme	B. Tech. – CSE	Semester	Interim 2020-2021
Course Name	Programming in Java	Course Code	CSE3002
Faculty Name	Prof. Anand Motwani	Slot / Class No	A11 / 1062
Time	1½ hours	Max. Marks	50

Answer ALL the Questions

Q. No.	Question Description	Marks

PART - A – (3 x 10 = 30 Marks)

1   (a)   Explain the access specifiers: public, private, protected and default (friendly) using a suitable Java program.   10

OR

(b)   Demonstrate the concept of implementing interface using a Java program based on given figure. Interface should have an abstract method and that should be implemented by classes. Can us instantiate the interface object. Can we access / utilize the abstract method of Race interface which are implemented by classes. (Note: Keep the implementations as small as possible.)   10
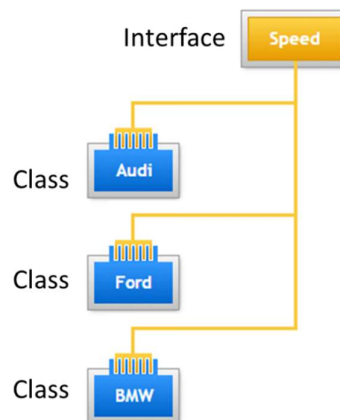
2   (a)   Differentiate between LinkedList and ArrayList on the basis of: 10
a. access;
b. searching and retrieval of elements;
c. addition and deletion of elements.
Also, write syntax for creating each of them.

OR

(b) Assume a given the List of radius or simply generate a List of radius. Perform the following operations (intermediate / terminal) to process it.
  - Utilize stream( ) over it.
  - Utilize the Lambda expression for finding: area of circles for the given values of radius in List.
  - Collect the calculated area values into new list.
Print the list having areas of circles.

10

3 (a) Demonstrate the following operations, in a single program, using methods form nio.file package :
  - Creating a file ("Zeal") at a specified path.
  - Writing the contents to the file.
  - Reading the contents of entire file.
  - Copying the created file to another path.
Also, apply the proper exception handling.

10

OR

(b) Define Runnable and Callable. Demonstrate the concept of running concurrent tasks from thread pool through ExecutorService.

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Part - B – (2 x 10 = 20 Marks)

4 How Java facilitates developers to deal with data structures and their manipulation. Demonstrate the search operation in a List of integers. Also, print the index of element if found in the List. Apply suitable exception handling in the program.

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5 Discuss the following terms in context to exception handling: *try, catch, throw, throws, finally*. Demonstrate their usage in a single program.

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