JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- 2023

B.Tech- VI Semester (ECE)

COURSE CODE(CREDITS): 19B1WCI734 (2

MAX. MARKS: 35

COURSE NAME: Object Oriented Technologies Using Java

COURSE INSTRUCTORS: Dr Emjee Puthooran

MAX. TIME: 2 Hours

Note: All questions are compulsory. Marks are indicated against each question in square brackets.

Q1. (a) What is the use of 'final' keyword in java? Explain with examples? [CO3, 2M]

(b) What are the different 'access specifies' in Java? Describe their visibility in various types of classes and packages. [CO3, 3M]

Q2. (a) What is the purpose of static methods and variables in Java? Explain with example. [CO1, 2M]

(b) What is the constructor? How many types of constructors are used in Java? [CO1, 3M]

Q3. (a) What are packages in Java? Briefly describe the procedure to create packages in Java. [CO4, 2M]

(b) Define a class Bird inside a package package_bird with data member name and methods to enter and display the name. Define another class SingingBird inside a package_singing_bird, which is a sub package of package_bird. The class SingingBird has a data member song and methods to enter and display the value of it. Now, import both of the above classes and instantiate their objects in the main method. Thereafter, call the methods of both the classes. [CO4, 3M]

Q4. Define a class Matrix in Java with methods to add, subtract and multiply two matrices. Write the main method to test the functionality of the class. [CO2, 5M]

Q5. Write a multithreaded program in Java to accomplish the following task. Print values from 1 to 10, print names of ten places and print names of ten countries. [CO4, 5M]

Q6. Define a class LinkedList in Java with members data of integer type and a reference next of LinkedList type. Define methods to insert and display the elements of the linked list.

[CO2, 5M]

Q7. Describe how the inputs are handled in Widgets of Java GUI programming? Write a simple GUI programming in Java to display a Button with the label 'Click Me'. [CO4, 5M]

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