VIT
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

NAME OF THE SCHOOL
CONTINUOUS ASSESSMENT TEST - II
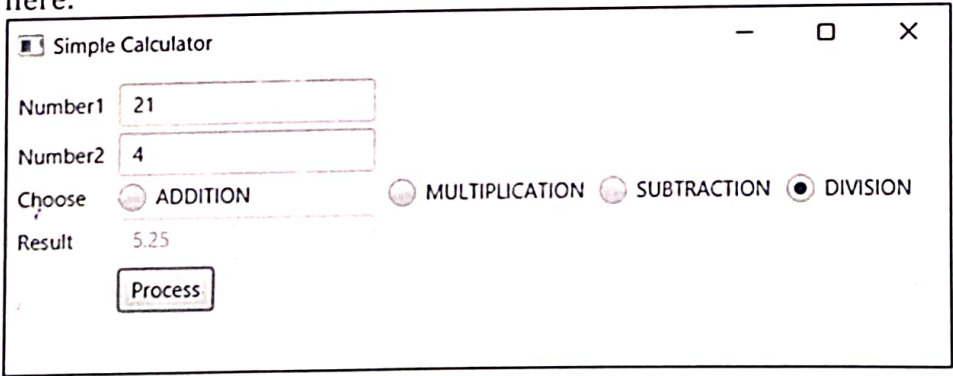### FALL SEMESTER 2024-2025

SLOT: B2 + TB2

Programme Name & Branch : MCA
Course Code and Course Name : PMCA502L & Java Programming
Faculty Name(s) : Dr. Senthil Murugan B, Dr. Thilagavathi M, Dr. Vijayarani
Class Number(s) : VL2024250103191, VL2024250103131, VL2024250103233
Date of Examination : 14-Oct-24
Exam Duration : 90 minutes

Maximum Marks: 50

General instruction(s):

- Answer All Questions
- M - Max mark; CO – Course Outcome; BL – Blooms Taxonomy Level (1 – Remember, 2 – Understand, 3 – Apply, 4 – Analyse, 5 – Evaluate, 6 – Create)
- Course Outcomes

CO4 - Design and Develop GUI applications that involve database for real world problems using JavaFX and JDBC.

CO5 - Design, develop and deploy web applications using servlets and java server pages.

Q. No	Question	M	CO	BL
1.	ABC Hospital is a leading super specialty hospital in the city. They have various departments such as ENT, Cardiology etc. In every department doctors are available for OP consultation. Patients need to take appointment for consulting any doctor. While visiting for the first time the patient's details will be recorded and an OP ID will be provided. For taking an appointment patient needs to provide OP ID to the clerk. Design the suitable application architecture for ABC hospital system automation. Enumerate the system features and briefly explain the technology, software tool kit used for each application layers.	10	4	4
2.	Write a JavaFX application to implement the simple calculator as shown here: The user may feed in the input values through respective fields and select the required arithmetic process option. On clicking "Process", the result should be displayed in non-editable 'Result' text field.	10	3	3

REG.NO.:

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3.	Assume that the database contains a table to represent inventory details like id, name, quantity, price and seller id. Write a simple console based Java program to get "seller id" from user and increase the price by 10% of the given seller. Finally, display the number of products purchased from seller.	10	3	3
4.	Consider that the HR database contains a table called "Employee" with the following fields: employee ID, name, department, and salary. Design HTML page consisting of controls to select the department name through drop down list and submit button named "List Employees". On submission to JSP, display the employees of the given department in HTML table format.	10	4	3

Display Employee Details

Department Name: [Academic ⌄]
  Academic
LIST EMPLOYEES HR
  IT
  Marketing
  Sales

Employees List

Id	Name	Salary	Department
3	Babu	34000	Academic
12	Anitha	27000	Academic
23	VIT University	25000	Academic

5.	Write a Servlet with HTML program to display the count of visited users and new users of a web page using sessions. Let the users choose the option as shown below:	10	4	3

User Details

Are You : ⦿ First Time Visits the page

   ○ Already Visited

VISITORS COUNT

Number of First Time Users: 5

Number of Visited Users: 3

The counts should be updated after clicking the button "VISITORS COUNT".

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