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

SCHOOL OF COMPUTER SCIENCE AND ENGINEERING

CSE1007- JAVA PROGRAMMING LABORATORY
Final Assessment Exam

Time:90 minutes   **Slot: L47+L48**

Date:04.11.2020

Instructions to Students

➤ Write Your Register Number, Name, Course code, Course Name and Slot in the first page.

➤ create an file that should contain code, screenshot of output for both the programs including database commands, Save the file with your register number (E.g: 17BCE0001.pdf) and then upload.

Question 1

(a) Write a JAVA program to display number of lines, characters and words in a text file.

(b) Create a table stores with following details item id, item type, itemname, manufacturer Name and Price. After creation of table, you have to following changes

- Update the price of the soap(itemtype) with DOVE(itemname) to Rs 60.
- Increase the price of all the Himalaya products by 20% And display the output.

Question 2

(a)Write a Java program that prints all real solutions to the quadratic equation ax^2+bx+c = 0. Read in a, b, c and use the quadratic formula. If the discriminate b^2-4ac is negative, throw an exception and display a message stating that there are no real solutions.

(b) Create an employee table with the following fields empid, empname, DOB, Dateofjoining and designation.Insert 5 faculty details on to the table, Retrieve all the employee details and retrieve the employee information whose designation is Manager and having maximum number of experience.

Question 3

a) Write a Java program to create a jagged array and perform the following.

Ruhan   Lakshan

Thejaswini   Tanishwar   Janaki

Aruna

(i) Reverse each position string

(ii) Display the string in each row having greatest length.

b) Consider a database table with the following schema, student name, regno,course title and marks of 5 subjects. Write a Java program to display the following

(i) Average mark scored by all students

(ii) student who scored highest mark in all 5 subjects.

(iii) List of students who got fail mark in only one course.

Question 4

(a) Write a Java program to sort a string array in ascending order.

   Input the string : hello world welcome to vit

   Expected Output :cdeeehilllllmoooorttvww

(b) Create a table for employee pay structure with the following fields the basic pay for the employee and the number of days leave taken, year of experience, gross salary and netsalary. Gross salary is calculated as Basic Pay based on cadre(5000 for cadre1 and 10000 for cadre2) + HRA + DA+ GRADE PAY(3000 for cadre1 and 4000 for cadre2). HRA is fixed as 30% of Basic pay and DA as 80% of Basic pay. Net salary includes deduction for PF (2000 is fixed for all cadres) and leave on loss of pay. An employee is eligible to take 1 day leave per month, leave taken more than 24 days in a calendar year is considered as loss of pay. Calculate the gross and net salary.

Question 5

(a) Write an application that executes two threads. One thread displays —An "HELLO" every 1000 milliseconds and other displays —" WELCOME TO VIT" every 3000 milliseconds. Create the threads by extending the Thread class.

(b) Create a student table with following fieldsstud_name, regno, DOB, course code and course title. Write a java code to perform the following

(i) Retrieve all the student details.

(ii) Retrieve the student details based on the course code.

(iii) Display the course title under which maximum number of students have enrolled.