Third Semester M. Sc. Computer Science Practical Examination- August 2021
Practical III: CSS3L03

GRADE POINT DISTRIBUTION

Part A						Part B						Total WGP
Table design	Implementation	Result/ Output	Viva	Record	Total	Class diagram, key method descriptions or algorithm	Implementation	Result/ Output	Viva	Record	Total	
15	15	15	15	15	75	15	15	15	15	15	75	150

Time: 3 Hours

Max Weight : 30

Attempt the marked question from each part

Part B - Object oriented Programming Concepts

1. Write a java program to print first n Fibonacci numbers.

2. Write a Java program to implement queue operations.

3. Write a Java program to create a student class with following attributes. Enrollment_number, name of student, any 3 marks & total. Total must be calculated only when the student passes in all the three subjects. The pass mark for each subject is 50. If a candidate fails in any one of the subjects his/her total mark must be declared as zero. Using these conditions write a constructor for this class. Write separate functions for accepting and displaying student details.

4. Write a Java program to find the volume of cube, rectangular box, cylinder using function overloading.

5. Write a java program to perform the operations deposit, withdrawal, and balance enquiry on a bank account. Throw an exception when the balance becomes negative or less than Rs. 500/- after withdrawal.

6. Develop an applet that receives an integer in one text field, and computes its factorial Value and returns it in another text field, when the button named "Compute" is clicked.

7. Create a table book containing id, name, author, price and publisher. Add few records. Write a java program to read data from the table and display it.

8. Write a java program to display the content of file in reverse order.

GRADE POINT DISTRIBUTION

Part A					Part B					Practical Record	Total Grade point
Database/ Table design	Implementation	Result/ Output	Viva	Total	Class diagram, key method descriptions or algorithm	Implementation	Result/ Output	Viva	Total		
5	15	10	10	40	10	10	10	10	40	20	100

Attempt the marked question from each part

PART A

1. Create a table emp (emp_no, emp_name, designation, branch) and perform the following:
   a. Alter the table by adding a column salary
   b. Copy the table emp as employee.
   c. Delete the second row from the table
   d. Drop the table.

2. Create a database consisting of required tables for a Student Admission System of a College. The database should contain at least 3 tables. (Student, programme, department etc. - use assumptions if required).
   a) Create tables using query and insert data of at least 10 students, 2 departments and 5 programmes.
   b) Write and perform query for
      i. Select all the students who undergo a particular programme eg: BCA.
      ii. List the student's details with name in alphabetical order.

3. Create a database consisting of required tables for a Railway Reservation System. The database should contain at least 3 tables. (Passenger, train, reservation etc. - use assumptions if required).
   a) Create tables using query and insert data of at least 3passengers, 2 trains and 8reservations.
   b) Write and perform query to
      i. List the details of passengers who reserved for a particular train on a day.
      ii. List the name of the train which has got minimumnumber of reservations.

4. Create a database consisting of tables deposit(acc_no, cust_name, place, amount) and loan(loan_no, cust_name, place, amount). Do the following:
   a. Display all customers who have an deposit or loan with the bank
   b. Display all customers who have both loan and deposit with the bank
   c. Display all customers who have only loan with the bank
   d. Display all customers who have only deposit with the bank.

5. Create a table student(regno,sname,mark1,mark2,mark3,mark4,mark5) Write a procedure to find and display total and average mark of students.