

BACHELOR OF SCIENCE (COMPUTER SCIENCE) (CBCS - 2018 COURSE)
F.Y.B.Sc.(Computer Science) Sem-II :SUMMER- 2022
SUBJECT : RDBMS USING ORACLE

Day : Friday
Date : 1/7/2022

S-20078-2022

Time : 11:00 AM-02:00 PM
Max. Marks : 60

N.B:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw suitable diagrams **WHEREVER** necessary

Q.1 Attempt **ANY TWO** of the following: **(12)**

- a) Explain two phase locking protocol with the help of example.
- b) Create table student (Srollno, Sname, Sfees). Insert five records and write a PL/SQL procedure to display name and fees of a student whose roll number is given by the user.
- c) Explain the following relational algebra operations
i) Set Difference ii) Rename iii) Intersection

Q.2 Attempt **ANY TWO** of the following: **(12)**

- a) What is normalization? Explain 1NF and 2 NF in detail.
- b) Explain PL/SQL user defined exception with syntax and example.
- c) Explain commit, rollback and savepoint operations.

Q.3 Attempt **ANY TWO** of the following: **(12)**

- a) Draw and explain different states of transaction .
- b) Describe how to create and drop trigger with the help of example.
- c) Explain left outer join and right outer join operations.

Q.4 Attempt **ANY THREE** of the following: **(12)**

- a) Explain recoverable and non-recoverable schedule.
- b) State the limitations of SQL.
- c) Write a PL/SQL block to accept a number and display reverse of the same.
- d) Write a PL/SQL block to accept a number and display factorial of the same.

Q.5 Attempt **ANY FOUR** of the following: **(12)**

- a) Differentiate between serial schedule and non-serial schedule.
- b) What is raise_application_error function?
- c) Give the syntax and example of switch case statement in PL/SQL.
- d) What is functional dependency?
- e) Write a short note on conflict serializability of transactions.
- f) Write a short note on different lock modes.