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First Year BBA(CA)
BBA12101: RELATIONAL DATABASE MANAGEMENT SYSTEM
(Semester II)

Program: BBA (Computer Application)
Program Specific: BBACA07
Course Type: Major (Mandatory)
Paper: I

Credits: 2
Time: 2 Hours
Max. Marks: 30
SET: A

Instructions to the candidate:

- 1) All questions are compulsory.
- 2) Figures to the right indicate full marks.
- 3) Draw a well labelled diagram wherever necessary.

SECTION: A

Q1) Answer the following

[5 X 1= 5M]

- 1) Does RDBMS have ACID properties?
a) Follows ACID properties b) Doesn't follow ACID properties
c) Depends on the data stored in the database d) Can't Predict
- 2) Which of the following is the full form of RDBMS?
a) Relational Data Management System
b) Relational Database Management System
c) Relative Database Management System
d) Regional Data Management System
- 3) Consider the following code : how many times the loop will run?
DECLARE
 a number(2) := 9;
BEGIN
 WHILE a < 30 LOOP
 a := a + 3;
 END LOOP;
END;
a) 10 b) 8 c) 7 d) 9
- 4) Which of the following makes the transaction permanent in the database?
a) View b) Commit c) Rollback d) Flashback
- 5) What are the two approaches to modify the database?
a) Deferred database modification b) Immediate database modification
b) Both A and B d) Log based recovery

SECTION: B

Q2) Attempt the following (Any 5)

[5 X 1 =10M]

- 1) Define RDBMS.
- 2) What is lock?
- 3) Define Transaction.
- 4) What is atomicity?
- 5) Enlist Operators in PL/SQL.
- 6) What is Schedule? List type of schedule.
- 7) What is Procedure?

SECTION: C

Q3) Answer the following (any 4)

[4 X 4 = 16M]

- 1) Explain % type and % row type with an example.
- 2) List and explain properties of transaction.
- 3) Consider the following relational database:
Customer (Cno,Cname,City) Account (Ano,Actype,Balance,Cno)
Define a trigger that restricts insertion or updation of account having balance less than 100.
- 4) Explain function with an example.
- 5) What is log? Explain log-based recovery.
- 6) What is Exception handling? Explain predefine exceptions.

SECTION: D

Q4) Answer the following

[4 X 1 = 4M]

- 1) Consider the following transaction. Give two non-serial schedules that the serializable:

T1	T2
Read(A)	Read(B)
A:=A-1000	B:=B+100
Write(A)	Write(B)
Read(B)	Read(C)
B:=B-100	C:=C+100
Write(B)	Write(C)

2) Following is the list of events in an interleaved execution of set T1,T2,T3 and T4.Assuming 2PL (Two Phase Lock).Is there a deadlock? If yes, which transactions are involved in deadlock?

Time	Transaction	Code
t1	T1	Lock(A,X)
t2	T2	Lock(B,S)
t3	T3	Lock(A,S)
t4	T1	Lock(C,X)
t5	T2	Lock(D,X)
t6	T1	Lock(D,S)
t7	T2	Lock(C,S)
