[Total No. of Questions :5]

SEAT No. :

[Total No. of Pages : 3]

F.Y. B.B.A. (CA)

CA - 204 : RELATIONAL DATABASE MANAGEMENT SYSTEM (RDBMS)

(2019 Pattern) (Semester - II)

[Time : 2½ Hours] *[Max. Marks : 70]*

Instructions to the candidates:

1) ***Total number of questions are 5.***
2) ***Figures to the right indicate full marks.***

Q1) **Attempt any EIGHT of the following (Out of TEN) :** **[8 × 2 = 16]**

a) State Disadvantages of RDBMS.

b) What is Primary key?

c) What are features of MySQL?

d) What are keys in RDBMS?

e) List the State of transaction?

f) What is Deadlock?

g) What is Cursor?

h) What is Checkpoint?

i) What is Isolation?

j) What is Lock?

Q2) **Attempt any FOUR of the following (Out of FIVE) :** **[4 × 4 = 16]**

a) Explain any four objects of oracle.

b) Write a note on package in PL/SQL.

c) List and explain properties of transaction.

d) Explain validation based protocol.

e) Explain data types in PL/SQL.

P.T.O.

Q3) Attempt any FOUR of the following (Out of FIVE) : **[4 × 4 = 16]**

a) Explain advantages and disadvantages of RDBMS.

b) Explain predefined exceptions.

c) What is block? List its types?

d) Explain two-phase locking protocol with example.

e) Explain transaction states?

Q4) Attempt any FOUR of the following (Out of FIVE) : **[4 × 4 = 16]**

a) Consider following relational database.

Employee(Eno, Ename, Ecity)

Loan(Lno,Lamt,Years,Cno)

Write a Procedure to display total Loan amount from pune city.

b) Consider the following transaction. Give two non-serial schedules that the Serializable.

T1	T2
Read(X)	Read(B)
X = A + 200	B = B + 200
Write(X)	Write(B)
Read(Y)	Read(C)
Y = Y +Z	C = C + 200
Write(Y)	Write(C)

c) Consider the following relational database :

Book (bno,bname,pubname,price,dno)

Dept (dno, dname,Location)

Write a Trigger which will return total expenditure on books of a given Department.

P.T.O.

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

Time	Transaction	Code
t_1	T1	Lock(A,X)
t_2	T2	Lock(B,S)
t_3	T3	Lock(A,S)
t_4	T1	Lock(C,X)
t_5	T2	Lock(D,X)
t_6	T1	Lock(D,S)
t_7	T2	Lock(C,S)
t_8	T3	Lock(E,S)

e) Print the even number using Loop.

Q5) **Write a short note on ANY TWO of the following (Out of THREE) :** **[2 × 3 = 6]**

a) Features of Oracle.

b) Features of PLSQL.

c) What is Starvation.