PRN:		Course Code :	PCA103

First Year M.C.A. End Semester Examination Winter 2022

Advanced Database Concepts

Day and Date: Monday 13/02/2023 Max Marks: **100**

Time : 10.30am - 01:30pm Duration: **03** hrs

Instructions: All questions are compulsory.

			Marks	Bloom's Level	CO
Q.1		**Attempt the following**			
	a)	Explain levels of abstraction and Data independence.	08	L1	1
	b)	Explain DBMS, Advantages of DBMS.	08	L2	1
		OR			
	b)	Elaborate various Data Types used in Oracle.	08	L3	1
Q.2		**Attempt the following**			
	a)	Discuss Architecture and advantages of PL/SQL.	08	L5	1
	b)	Elaborate While Loop and write a PL/SQL program to enter a number find its factorial.	08	L3	1
		OR			
	b)	Explain IF … ELSE … END IF with a program example.	08	L3	1
Q.3		**Attempt any two from the following**			
	a)	Explain Procedure with suitable example.	08	L3	2
	b)	Explain Function with a suitable example.	08	L3	2
	c)	Illustrate Sequences with a suitable example.	08	L3	2
Q.4		**Attempt any two from the following**			
	a)	Illustrate Exception handling mechanism with types of exceptions with a program example.	08	L3	3
	b)	Explain Cursor with types of cursor, How it executes with suitable example. What are four cursor attributes?	08	L3	3
	c)	Explain Exception handling with Pragma Exception_Init. Write a PL/SQL exception to delete department from dept table , where there is rows in the employee table of that department. dept(deptid, dname, dhod), employee(empid, ename, city, age, contactno, salary, comm, deptid).	08	L5	3
Q.5		**Attempt any Two of the following**			
	a)	Explain Dynamic SQL with a suitable example.	09	L2	3

ESE

	b)	Illustrate Trigger with a program example.	09	L4	3
	c)	Explain Packages and SQL Injections.	09	L3	3
Q.6		**Attempt any Two of the following**			
	a)	Elaborate ACID Properties of transaction management.	09	L3	4
	b)	Explain Deadlock Handling with suitable example.	09	L3	4
	c)	Elaborate Crash Recovery using log based recovery method.	09	L2	4