GUJARAT TECHNOLOGICAL UNIVERSITY
Diploma Engineering – SEMESTER – 4 (OLD) – EXAMINATION – Winter-2023

Subject Code: 3340701   **Date: 12-01-2024**

Subject Name: Advanced Database Management System

Time: 02:30 PM TO 05:00 PM   **Total Marks: 70**

Instructions:
1. Attempt all questions.
2. Make Suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Use of programmable & Communication aids are strictly prohibited.
5. Use of non-programmable scientific calculator is permitted.
6. English version is authentic.

Q.1		Answer any seven out of ten. દશમાંથી કોઇપણ સાતના જવાબ આપો.	**14**

1. Explain shared અને exclusive lock.
૧. shared and exclusive lock સમજાવો

2. Explain GRANT AND REVOKE command.
૨. GRANT AND REVOKE command સમજાવો

3. What is numbered exception?
૩. numbered exception શુંછે?

4. What is package?
૪. package શું છે?

5. Differentiate before and after trigger.
૫. before and after trigger વચ્ચેનો તફાવત સમજાવો.

6. What is cursor?
૬. cursor શું છે?

7. What is fully functional dependency?
૭. fully functional dependency શુંછે?

8. Explain levels of Normalization.
૮. Normalization ના levels સમજાવો.

9. What is transaction?
૯. transaction શુંછે?

10. What is trivial and non trivial dependency?
૧૦. trivial અને non trivial dependency શુંછે?

Q.2	(a)	Explain TCL commands.	**03**
પ્રશ્ન. ૨	(અ)	TCL commands સમજાવો.	**૦૩**

<div align="center">OR</div>

	(a)	Explain DCL commands.	**03**
	(અ)	DCL commands સમજાવો.	**૦૩**
	(b)	Explain levels of locks.	**03**
	(બ)	levels of locks સમજાવો.	**૦૩**

<div align="center">OR</div>

	(b)	Explain Synonym with example.	**03**
	(ખ)	Synonym ઉદાહરણ આપી સમજાવો.	**૦૩**
	(c)	What is view? Explain view with example.	**04**
	(ક)	View શું છે? View ઉદાહરણ આપી સમજાવો.	**૦૪**

OR

	(c)	Create a sequence and explain all its parameters.	**04**
	(ક)	Sequence Create કરો અને તેના બધા parameters સમજાવો.	**૦૪**
	(d)	What is Index? Explain Index with example.	**04**
	(ડ)	Index શું છે? Index ઉદાહરણ આપી સમજાવો.	**૦૪**

OR

	(d)	Explain types of Indexes.	**04**
	(ડ)	જુદા જુદા પ્રકારની Indexes સમજાવો.	**૦૪**

Q.3	(a)	Explain generic PL/SQL block.	**03**
પ્રશ્ન. 3	(અ)	generic PL/SQL block સમજાવો.	**૦૩**

OR

	(a)	Give advantages of PL/SQL.	**03**
	(અ)	PL/SQL ના advantages આપો.	**૦૩**
	(b)	Explain if else ladder in PL/SQL.	**03**
	(ખ)	PL/SQL માં if else ladder સમજાવો.	**૦૩**

OR

	(b)	Explain FOR loop in PL/SQL.	**03**
	(ખ)	PL/SQL માં FOR loop સમજાવો.	**૦૩**
	(c)	Explain cursor for LOOP with example.	**04**
	(ક)	cursor for LOOP ઉદાહરણ આપી સમજાવો.	**૦૪**

OR

	(c)	Explain different attributes of cursor with example.	**04**
	(ક)	Different attributes of cursor ઉદાહરણ આપી સમજાવો.	**૦૪**
	(d)	Explain different types of Exceptions.	**04**
	(ડ)	જુદા જુદા પ્રકારના Exceptions સમજાવો.	**૦૪**

OR

	(d)	What is trigger? Explain advantages of using trigger. Give the difference between trigger and procedure.	**04**
	(ડ)	Trigger શું છે? Trigger ના ફાયદા સમજાવો. Trigger અને procedure વચ્ચે નો તફાવત સમજાવો.	**૦૪**

Q.4	(a)	What is normalization? Explain 1NF with example.	**03**
પ્રશ્ન. ૪	(અ)	normalization શું છે? 1NF ઉદાહરણ આપી સમજાવો.	**૦૩**

OR

	(a)	What is functional dependency ?Explain Armstrong's Axioms for Functional Dependencies.	**03**
	(અ)	functional dependency શું છે? Armstrong's Axioms for Functional Dependencies સમજાવો.	**૦૩**
	(b)	Explain dependency Preserving decomposition.	**04**
	(ખ)	dependency Preserving decomposition સમજાવો.	**૦૪**

OR

	(b)	Explain Functional Dependency Diagram.	**04**

	(ખ)	Functional Dependency Diagram સમજાવો.	૦૪
	(c)	Explain 2NF and 3NF with example.	07
	(ક)	2NF and 3NF ઉદાહરણ આપી સમજાવો.	૦૭
Q.5	(a)	Explain procedure and functions in PL/SQL.	04
પ્રશ્ન. પ	(અ)	Procedure and Functions in PL/SQL સમજાવો.	૦૪
	(b)	Explain Two – Phase locking protocol.	04
	(ખ)	Two – Phase locking protocol સમજાવો.	૦૪
	(c)	Explain time stamp method of concurrency control.	03
	(ક)	time stamp method of concurrency control સમજાવો.	૦૩
	(d)	Explain ACID property of transaction.	03
	(ડ)	ACID property of transaction સમજાવો.	૦૩

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