

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
DIPLOMA ENGINEERING – SEMESTER –4(NEW) EXAMINATION – WINTER - 2021

**Subject Code: 3340701****Date:23-12-2021****Subject Name: Advanced Database Management System****Time: 10:30 AM TO 01:00 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 કોઈપણ સાતના જવાબ આપો. **14**
1. Explain commit and savepoint.  
૧. commit અને savepoint સમજાવો.
  2. Explain shared and exclusive lock.  
૨. shared અને exclusive lock સમજાવો.
  3. How can we delete sequence?  
૩. Sequence delete કેવી રીતે કરી શકાય?
  4. What is numbered exception?  
૪. numbered exception શું છે?
  5. Differentiate Implicit and Explicit cursor.  
૫. Implicit અને Explicit cursor નો તફાવત આપો.
  6. Differentiate Procedures and Functions.  
૬. Procedures અને Functions નો તફાવત આપો.
  7. What is fully functional dependency?  
૭. fully functional dependency શું છે?
  8. Explain levels of Normalization.  
૮. Normalization ના levels સમજાવો.
  9. What is concurrency control?  
૯. concurrency control શું છે?
  10. What is trivial and non trivial dependency?  
૧૦. trivial અને non trivial dependency શું છે?
- Q.2** (a) Explain TCL commands. **03**  
પ્રશ્ન. ૨ (અ) TCL commands સમજાવો. **૦૩**
- OR
- (a) Explain DCL commands. **03**  
(અ) DCL commands સમજાવો. **૦૩**
- (b) Explain Implicit locks. **03**  
(બ) Implicit locks સમજાવો. **૦૩**
- OR
- (b) Explain Explicit locks. **03**

	(બ) Explicit locks સમજાવો.	૦૩
	(c) What is view? Explain types of views. How can we create view?	૦૪
	(ક) View શું છે? types of views સમજાવો. View create કેવી રીતે કરી શકાય?	૦૪
	OR	
	(c) Explain types of Indexes. How can we create an Index?	૦૪
	(ક) types of Indexes સમજાવો. Index create કેવી રીતે કરી શકાય?	૦૪
	(d) Create a sequence and explain all its parameters.	૦૪
	(ડ) Sequence Create કરો અને તેના બધા parameters સમજાવો.	૦૪
	OR	
	(d) How can we use sequence? How can we delete a sequence?	૦૪
	(ડ) Sequence કેવી રીતે ઉપયોગ માં લેવાય? Sequence delete કેવી રીતે કરી શકાય?	૦૪
<b>Q.3</b>	(a) Give advantages of PL/SQL.	૦૩
<b>પ્રશ્ન. ૩</b>	(અ) PL/SQL ના advantages આપો.	૦૩
	OR	
	(a) Explain generic PL/SQL block.	૦૩
	(અ) generic PL/SQL block સમજાવો.	૦૩
	(b) How can we display message and write comment in PL/SQL block.	૦૩
	(બ) PL/SQL block માં message display અને comment કેવી રીતે લખાય?	૦૩
	OR	
	(b) Explain conditional control in PL/SQL.	૦૩
	(બ) PL/SQL માં conditional control સમજાવો.	૦૩
	(c) Explain steps required to manage explicit cursor and manipulate data.	૦૪
	(ક) to manage explicit cursor and manipulate data માટે ના જરૂરી પગથીયા સમજાવો.	૦૪
	OR	
	(c) Explain cursor for LOOP with example.	૦૪
	(ક) cursor for LOOP ઉદાહરણ આપી સમજાવો.	૦૪
	(d) Explain user defined Exceptions.	૦૪
	(ડ) user defined Exceptions સમજાવો.	૦૪
	OR	
	(d) Explain types of triggers.	૦૪
	(ડ) types of triggers સમજાવો.	૦૪
<b>Q.4</b>	(a) Explain 1NF	૦૩
<b>પ્રશ્ન. ૪</b>	(અ) 1NF સમજાવો.	૦૩
	OR	
	(a) Explain Armstrong's Axioms for Functional Dependencies.	૦૩
	(અ) Armstrong's Axioms for Functional Dependencies સમજાવો.	૦૩
	(b) Explain dependency Preserving decomposition.	૦૪
	(બ) dependency Preserving decomposition સમજાવો.	૦૪
	OR	
	(b) Explain Functional Dependency Diagram.	૦૪
	(બ) Functional Dependency Diagram સમજાવો.	૦૪
	(c) Explain 2NF and 3NF	૦૭
	(ક) 2NF and 3NF સમજાવો.	૦૭

<b>Q.5</b>	(a) Explain structure of package in PL/SQL.	<b>04</b>
<b>પ્રશ્ન. ૫</b>	(અ) structure of package in PL/SQL સમજાવો.	<b>૦૪</b>
	(b) Explain ACID property of transaction.	<b>04</b>
	(બ) ACID property of transaction સમજાવો.	<b>૦૪</b>
	(c) Explain Two – Phase locking protocol.	<b>03</b>
	(ક) Two – Phase locking protocol સમજાવો.	<b>૦૩</b>
	(d) How can we create and destroy trigger?	<b>03</b>
	(ડ) create અને destroy trigger કેવી રીતે કરી શકાય?	<b>૦૩</b>

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