

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGINEERING – SEMESTER – IV • EXAMINATION – WINTER 2016

Subject Code: **3340701**Date: **17-11-2016**Subject Name: **Advanced Database Management System**Time: **2:30 PM TO 5 :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 only simple calculator is permitted in Mathematics.
6. English version is authentic.

- Q.1** Answer any seven out of ten. દશમાંથી કોઇપણ સાતના જવાબ આપો. **14**
1. Define: Decomposition, functional Dependency
 ૧. વ્યાખ્યા આપો: Decomposition, functional Dependency
 2. Define: Trivial dependency, Nontrivial dependency
 ૨. વ્યાખ્યા આપો: Trivial dependency, Nontrivial dependency
 3. What is normalization? List out various normal forms.
 ૩. Normalization એટલે શું? normal forms ની યાદી બનાવો.
 4. Define: Transaction, Concurrency control
 ૪. વ્યાખ્યા આપો: Transaction, Concurrency control
 5. Define: Schedule, Serializable Schedule
 ૫. વ્યાખ્યા આપો: Schedule, Serializable Schedule
 6. Write full form: DCL, TCL
 ૬. પુર્ણ નામ લખો: DCL, TCL
 7. Define: View, Index
 ૭. વ્યાખ્યા આપો: View, Index
 8. Define: Sequences, Synonyms
 ૮. વ્યાખ્યા આપો: Sequences, Synonyms
 9. Define: Function, Procedures
 ૯. વ્યાખ્યા આપો: Function, Procedures
 10. Define: Packages, Triggers
 ૧૦. વ્યાખ્યા આપો: Packages, Triggers
- Q.2** (a) Explain lossy join decomposition with example. **03**
- પ્રશ્ન. ૨ (અ) lossy join decomposition ઉદાહરણ આપી સમજાવો. **03**
- OR
- (a) Explain lossless join decomposition with example. **03**
- (અ) Lossless join decomposition ઉદાહરણ આપી સમજાવો. **03**
- (b) Explain dependency preserving decomposition with example. **03**
- (બ) Dependency preserving decomposition ઉદાહરણ આપી સમજાવો. **03**

OR

	(b)	Write algorithm to find redundant functional dependency.	03
	(બ)	Redundant functional dependency શોધવાનો અલ્ગોરિધમ લખો.	03
	(c)	Write short note: functional dependency	04
	(ક)	ટૂંકનોંધ લખો : functional dependency	04
		OR	
	(c)	Explain full functional dependency with example.	04
	(ક)	Full functional dependency ઉદાહરણ આપી સમજાવો.	04
	(d)	Write short note: 1NF	04
	(ડ)	ટૂંકનોંધ લખો : 1NF	04
		OR	
	(d)	Write short note: Armstrong's Axioms for functional dependency.	04
	(ડ)	ટૂંકનોંધ લખો : Armstrong's Axioms for functional dependency.	04
Q.3	(a)	Explain COMMIT command.	03
પ્રશ્ન. 3	(અ)	COMMIT command સમજાવો.	03
		OR	
	(a)	Explain ROLLBACK & SAVEPOINT command.	03
	(અ)	ROLLBACK & SAVEPOINT command સમજાવો.	03
	(b)	Explain GRANT command by example.	03
	(બ)	GRANT command ઉદાહરણ આપી સમજાવો.	03
		OR	
	(b)	Explain REVOKE command by example.	03
	(બ)	REVOKE command ઉદાહરણ આપી સમજાવો.	03
	(c)	Write short note: 2 NF	04
	(ક)	ટૂંકનોંધ લખો : 2 NF	04
		OR	
	(c)	Write short note: 2 PL	04
	(ક)	ટૂંકનોંધ લખો : 2 PL	04
	(d)	Write short note: 3NF	04
	(ડ)	ટૂંકનોંધ લખો : 3 NF	04
		OR	
	(d)	What is deadlock? How to control deadlock.	04
	(ડ)	Deadlock એટલે શું? Deadlock ને કંટ્રોલ કઈ રીતે કરી શકાય.	04
Q.4	(a)	Write short note: Implicit locks	03
પ્રશ્ન. 4	(અ)	ટૂંકનોંધ લખો : Implicit locks	03
		OR	
	(a)	Write short note: Explicit locks	03
	(અ)	ટૂંકનોંધ લખો : Explicit locks	03
	(b)	Explain advantages of view with example.	04
	(બ)	View ના ફાયદાઓ ઉદાહરણ આપી સમજાવો.	04
		OR	
	(b)	How sequence can be created explain by example.	04
	(બ)	Sequence કઈ રીતે create કરી શકાય ઉદાહરણ આપી સમજાવો.	04
	(c)	Write PL/SQL program to reverse a given string.	07

	(ક) આપેલી String ને reverse કરવાનો PL/SQL પ્રોગ્રામ લખો.	૦૭
Q.5	(a) How to handle named exception explain by example.	04
પ્રશ્ન. ૫	(અ) Named exception કઈ રીતે handle થાય ઉદાહરણ આપી સમજાવો.	૦૪
	(b) Write short note: Parameterized cursor	04
	(બ) ટુંકનોંધ લખો : Parameterized cursor	૦૪
	(c) Write short note: PL/SQL data types	03
	(ક) ટુંકનોંધ લખો : PL/SQL data types	૦૩
	(d) Explain GOTO statement by example.	03
	(ડ) GOTO statement ઉદાહરણ આપી સમજાવો.	૦૩
