## 21718 3 Hours / 100 Marks

Seat No.								
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Instructions:

- (1) All Questions are *compulsory*.
- (2) Answer each next main Question on a new page.
- (3) Illustrate your answers with neat sketches wherever necessary.
- (4) Figures to the right indicate full marks.
- (5) Assume suitable data, if necessary.
- (6) Use of Non-programmable Electronic Pocket Calculator is permissible.
- (7) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

## 1. Attempt any FIVE of the following:

20

- (a) What is DBMS? State benefits of DBMS.
- (b) What is Program Global Area (PGA)?
- (c) Explain Oracle System table space.
- (d) What do you mean by object privileges?
- (e) Explain causes of failure of DBMS.
- (f) Explain advantages of Web Databases.
- (g) What is mobile databases? Write characteristics of mobile databases.

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## 1 2. Attempt any FOUR: 16 (a) Explain System Global Area (SGA). (b) Explain distributed DBMS. (c) Explain threats to Database Security. What is Digital Library? Explain need of Digital Library. (d) What are key benefits of three-tier application? (e) Explain any two data mining techniques. (f) 3. **Attempt any FOUR:** 16 Explain Role based architecture in DBMS with suitable example. (a) (b) Explain any four features of multimedia databases. (c) Explain need for data warehousing. Explain shadow paging recovery technique. (d) What is Transaction log? Give the role of transaction log in recovery. (e) (f) Explain two-tier architecture of Database. Attempt any TWO: 16 4. Draw and explain detailed architecture of Oracle DBMS and its components. (a) What are components of digital library? Explain in detail. (b)

What is client server architecture? Explain client server architecture with

(c)

partioning on application.

5.	Attempt any TWO:				
	(a)	What are various background processes of Oracle Server Architecture?			
	(b)	What are various discretionary access control?			
	(c)	What are Catastrophic failure? How to obtain recovery from such failure?			
6.	Attempt any FOUR:				
	(a)	What are System Privileges ?			
	(b)	Draw the architecture of mobile databases.			
	(c)	Write any four characteristics of data warehouse.			
	(d)	Explain Data Mining applications.			
	(e)	What are key consideration in Three-tier architecture?			
	(f)	How recovery of data is done in multi-database system?			

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