C.U.SHAH UNIVERSITY
Summer Examination-2018

Subject Name: Advanced Database Management System

Subject Code: 4CS06IDB1   **Branch: B.Sc.I.T.**

Semester: 6   **Date: 25/04/2018**   **Time: 02:30 To 05:30**   **Marks: 70**

Instructions:
   (1) Use of Programmable calculator & any other electronic instrument is prohibited.
   (2) Instructions written on main answer book are strictly to be obeyed.
   (3) Draw neat diagrams and figures (if necessary) at right places.
   (4) Assume suitable data if needed.

Q-1   **Attempt the following questions:**   **(14)**

a) A Database management System (DBMS) is

A) Collection of interrelated data B) Collection of programs to access data   1

C) Collection of data describing one particular enterprise D) All of the above

b) In an Entity-Relationship Diagram Rectangle represents

A) Entity sets B) Attributes C) Database D) Tables   1

c) Data Manipulation Language enables users to

A) Retrieval of information stored in database

B) Insertion of new information into the database.   1

C) Deletion of information from the database

D)All of the above

d) Who proposed the relational model?

A) Bill gates B) E.F. Codd C) Herman Hollerith D) Charles Babbage   1

e) A command to remove a relation from an SQL database

A) Delete table <table name> B) Drop table < table name>   1

C) Erase table <table name> D) Alter table <table name)

f) Which of the following is not an Aggregate function?

A) Min B) Max C) Select D) Avg   1

g) What is an ACID property of Transactions?

A) Atomicity, Consistency, Isolation, Database

B) Atomicity, Consistency, Isolation, Durability   1

C) Atomicity, Consistency, Inconsistent, Durability

D)Automatically, concurrency, Isolation, Durability

h) Database Locking concept is used to solve the problem of

A) Lost Update b) Uncommitted Dependency C) Inconsistent Data D) All of above   1

i) A transaction completes its execution is said to be

A) Saved B) Loaded c) Rolled D) Committed   1

j) Which of the join operations do not preserve non matched tuples

A) Left outer join B) Right outer join C) Inner join D) Natural join   1

k)	A _____ consists of a sequence of query and/or update statements A) Transaction B) Commit C) Rollback D) Flashback	1
l)	A _____ is a special kind of a store procedure that executes in response to certain action on the table like insertion, deletion or updation of data A) Procedures B) Triggers C) Functions D) None of the mentioned	1
m)	To eliminate duplicate row_____ is used A) Noduplicate B) ELIMINATE C) DISTINCT D) None of these	1
n)	_____ states that only valid data will be written to the database A) Consistency B) Atomicity C) Durability D) Isolation	1

Attempt any four questions from Q-2 to Q-8

Q-2		**Attempt all questions**	**(14)**
	a.	What is a DBMS? Explain DBMS characteristic.	**7**
	b.	Explain any Seven Dr. E. F. Codd Rules in DBMS.	**7**
Q-3		**Attempt all questions**	**(14)**
	a.	Explain the Generalization feature of E-R Diagram.	**5**
	b.	Explain the various keys in DBMS.	**5**
	c.	What is Normalization? What is the need for normalization?	**4**
Q-4		**Attempt all questions**	**(14)**
	a.	Explain basic Data types in Oracle.	**5**
	b.	What are various DML commands in SQL? Give brief description of their purposes.	**5**
	c.	What is join? List and explain various types of joins.	**4**
Q-5		**Attempt all questions**	**(14)**
	a.	Explain any Five Aggregate functions of SQL.	**5**
	b.	Explain various DDL commands with suitable example.	**5**
	c.	Explain Transaction Control Commands.	**4**
Q-6		**Attempt all questions**	**(14)**
	a.	What is cursor? Explain the types of cursors.	**7**
	b.	Define Locking. Explain two phase locking protocol.	**7**
Q-7		**Attempt all questions**	**(14)**
	a.	Explain PL/SQL Structure Block with suitable figure.	**5**
	b.	What is System Recovery? Explain the log based recovery.	**5**
	c.	What is a transaction? Explain its four important properties.	**4**
Q-8		**Attempt all questions**	**(14)**
	a.	Explain the different types of Backup with suitable examples.	**5**
	b.	Explain the Trigger with example.	**5**
	c.	Write a brief note on (I) Listener (II) Dispatcher.	**4**