

Seat No. : _____

MM-109

March-2019

B.C.A., Sem.-VI

CC-308 : Database Administration

Time : 2:30 Hours]

[Max. Marks : 70

1. (A) Answer the following :

- (i) Explain in detail: Oracle Database Structure. 7
- (ii) Explain: Client-server Architecture and Multi-tier Architecture. 7

OR

- (i) Discuss : The different types of oracle users. Also discuss the responsibilities of database administrator.
- (ii) What is a tablespace ? Explain the different types of tablespaces in detail.

(B) Answer any **four** :

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(1) _____ installs and upgrades Oracle database server and front-end applications.

- (a) Security Consultants
- (b) Database Administrator
- (c) Application Developer
- (d) Security administrator

(2) _____ is a system privilege for database administrator.

- (a) SYSTEM
- (b) SYS
- (c) SYSDBA
- (d) All of above.

(3) Which of the operations can be performed by SYSOPER system privilege ?

- (a) STARTUP
- (b) SHUTDOWN
- (c) CREATE SPFILE
- (d) All of above

(4) _____ is defined as virtual table that derives data from one or more tables.

- (a) Table
- (b) Indexes
- (c) Views
- (d) All of above

(5) _____ is defined as a shared memory that contains the data and controls information about a single Oracle instance.

- (a) SGA
- (b) PGA
- (c) Both (a) and (b)
- (d) None

- (6) The _____ process is responsible for copying the online redo log files to storage device when Redo log files become full.
- (a) ARCH (b) DBWR
(c) LGWR (d) CKPT

2. (A) Answer the following :

- (i) What are control files ? Discuss the considerations for managing the control files. 7
- (ii) Write a detailed note on Data files. 7

OR

- (i) What is Profile in Oracle ? Explain creating and dropping of Profile.
- (ii) What are database roles ? What are the different types of database roles that oracle supports ? Also discuss the system level roles.

(B) Answer any **four** :

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- (1) _____ are the right that enables database users to run the SQL statements.
- (a) Profiles (b) Roles
(c) Privileges (d) Users
- (2) A _____, in Oracle, is a database user who can access and work with oracle databases.
- (a) Profile (b) Role
(c) Privilege (d) User
- (3) The _____ statement is used to grant system privilege or role to database users.
- (a) PRIVATE (b) REVOKE
(c) PUBLIC (d) GRANT
- (4) Oracle records all the changes for a database in the _____ files.
- (a) Redo Log (b) Control
(c) Data (d) None of above
- (5) The _____ files are generated automatically when the database is created.
- (a) Redo Log (b) Control
(c) Data (d) None of above
- (6) Each database has at least one tablespace namely _____.
- (a) SYS (b) Both (a) and (c)
(c) SYSTEM (d) None of above

3. (A) Answer the following :

- (i) Explain :
(1) B-Tree index
(2) Bitmap index
(3) Function-based index.
- (ii) Explain Clusters in detail.

OR

- (i) What is partitioning ? How does partitioning increase manageability ?
(ii) What is meant by rebuilding indexes ? Also explain the importance of index validation.

(B) Answer any **three** :

- (1) _____ is a method to free leaf blocks for reuse.
(a) Rebuilding (b) Coalescing
(c) Partitioning (d) None of above
- (2) _____ refers to performing a check to confirm that every entry in the index points to the correct row of the associated table.
(a) Index Rebuilding (b) Index Validation
(c) Index Monitoring (d) Index Coalescing
- (3) A _____ is a group of tables that share the same data block.
(a) Index (b) Non-unique index
(c) Cluster (d) None of above
- (4) _____ indexes are indexes that can be created on multiple columns of a table.
(a) Composite (b) Unique
(c) Bitmap (d) Reverse
- (5) _____ indexes are B-Tree indexes in which the key column value is reversed while keeping the column order.
(a) Composite (b) Unique
(c) Bitmap (d) Reverse

4. (A) Answer the following :

- (i) What is optimizer ? State and explain the two types of Optimizers.
(ii) What is tuning ? How can you tune memory usage ?

OR

- (i) What do you mean by data backup ? Also explain physical and logical backups.
(ii) What is meant by data recovery ? Explain the different types of recovery methods.

(B) Answer any **three** :

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- (1) Which are the different data structures provided by Oracle, to recover the data ?
 - (a) Online Redo logs
 - (b) Roll-back and undo segments
 - (c) Control Files
 - (d) All of above

 - (2) _____ reads the content of the export dump file and executes the SQL commands stored in the export file.
 - (a) Import utility
 - (b) Export utility
 - (c) tablespace
 - (d) None of above

 - (3) The _____ plan is an algorithm for retrieving data from the database.
 - (a) execution
 - (b) explain
 - (c) optimal
 - (d) tuning

 - (4) _____ refers to all the tasks that are performed to improve the performance of the database.
 - (a) Optimizers
 - (b) Tuning
 - (c) Data Recovery
 - (d) Data backup

 - (5) Tuning the _____ involves grouping the database objects on the basis of their space usage.
 - (a) Physical Storage
 - (b) Memory usage
 - (c) Logical Storage
 - (d) None of above
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