LD-115

April-2014

BCA : Sem.-VI

CC-308 : Database Administration

Time : 3 Hours]   **[Max. Marks : 70**

Instructions : (1)   Attempt all questions.

               (2)   Make suitable assumptions wherever necessary.

               (3)   Figures to the right indicate full marks.

1.   (A) Answer the following questions :   **8**

        (a) Explain logical structure of the database in detail.

        (b) List all the oracle process and explain any three in detail.

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OR

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  (A) Answer the following questions :   **8**

        (a) Define tablespace and explain its types.

        (b) Write a short note on memory structures.

  (B) Answer briefly :   **6**

        (a) What do you mean by multitier architecture ? Explain.

        (b) Write the syntax to alter the tablespace.

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OR

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  (B) Answer briefly :   **6**

        (a) Discuss the steps for working of oracle database server.

        (b) Explain the responsibilities of a database administrator.

2.   (A) Answer the following questions :   **8**

        (a) Write the syntax to create a control file using CONTROLFILE statement.

        (b) Discuss the mechanism how the transaction are stored in the redo log files.

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OR

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(A)   Answer the following questions :   **8**

    (a)   What is a oracle profile ? Create a profile that allows :

       (i)   6 Concurrent sessions

       (ii)   50 CPU per session

       (iii)   Idle time for 20 minutes

       (iv)   Connect time for 70 minutes

       (v)   Number of data blocks that can be called per session is unlimited

       (vi)   Number of data blocks that can be called per user is 1000

    (b)   Discuss system level roles in detail.

(B)   Answer briefly :   **6**

    (a)   How you can specify the location of the archive redo log files in the initialization parameter file ?

    (b)   Explain relocating and dropping of redo log files.

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OR

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(B)   Answer briefly :   **6**

    (a)   Define privilege and list examples of system level privileges.

    (b)   Create a role, my_role. Grant SELECT, INSERT and DELETE privilege to the role, my_role on the student table. Grant this role to the database user, HEMIT.

3.   (A)   Answer the following questions :   **8**

    (a)   Write a short note Hash clusters.

    (b)   What is partitioning ? How does partitioning increase manageability ?

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OR

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(A)   Answer the following questions :   **8**

    (a)   What are clusters ? How are they beneficial ?

    (b)   What are the factors that must be considered before indexing ?

(B)   Answer briefly :   **6**

    (a)   Discuss Bitmap indexes.

    (b)   Write a query to create Index-Organized table.

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OR

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(B)   Answer briefly :   **6**

    (a)   Explain the concept of index coalescing.

    (b)   Discuss the situations when you need to rebuild an index.

4.   (A)   Answer the following questions :   **8**

    (a)   Define optimizer and explain various optimizer goals.

    (b)   What are the steps that you need to follow to create the backup of the data, using export utility ?

OR

(A)   Answer the following questions :   **8**

    (a)   What are two types of optimizers ? What are the various ways to set optimizer modes ?

    (b)   Write a short note on cold backup.

(B)   Answer briefly :   **6**

    (a)   What is database tuning ? How can you tune memory usage ?

    (b)   Describe various data structures used for recovering the data.

OR

(B)   Answer briefly :   **6**

    (a)   What is EXPLAIN_PLAN ? Why is it used ?

    (b)   Discuss RMAN commands.

5.   Do as directed :

Fill in the blanks :   **7**

    (1)   Whenever oracle database is installed, a default table space is created called _____.

    (2)   The _____ process is responsible for inter-instance locking in RAC.

    (3)   _____ is a logical storage structure that stores the data physically in data files.

    (4)   A _____ specifies the system resources that are available to a database user.

    (5)   A _____ is a pointer to the location of data in a table.

    (6)   The _____ uses database objects and conditions specified in the query, to generate an execution plan.

    (7)   A _____ is a copy of data stored in a database.

True or False :   **7**

(1)   LGWR writes the redo log buffer into redo log files on disk.

(2)   You should have multiple copies of an online redo log files.

(3)   There is no SQL statement to drop a datafile.

(4)   Oracle does not allow to modify profiles and drop them.

(5)   A cluster is a group of tables that share common data blocks.

(6)   PINS represents the number of executions of SQL statements.

(7)   Physical backup includes backing up files using operating system commands.

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