**ADVANCED DATABASE ADMINISTRATION**

**UNIT-I**

**Creating a Database** – [Database configuring Assistant (DBCA),](https://blogs.oracle.com/db/overview-of-database-configuration-assistant-dbca) [Password management](https://en.wikipedia.org/wiki/Password_management), [Using DBCA to delete a database.](https://docs.oracle.com/database/121/ADMQS/GUID-C0DDA1A8-90CE-4A99-8C3B-B72A40D96D0B.htm#ADMQS0234)

[**Managing the database instance** Management framework](https://docs.oracle.com/cd/B16351_01/doc/server.102/b14196/instance001.htm), [starting and stopping database control](https://docs.oracle.com/html/E25494_01/dbcontrol003.htm), [Initialising parameter files](https://docs.oracle.com/cd/B19306_01/server.102/b14237/initparams003.htm#i1124392), [starting up and shutting down database instance](https://docs.oracle.com/cd/B19306_01/server.102/b14220/startup.htm).

[**Managing Database storage structure** – Storage structure](https://docs.oracle.com/cd/E11882_01/server.112/e10897/storage.htm#ADMQS006), [How table data is stored?](http://haifux.org/lectures/148/db-interanls-cbo.pdf) [Tablespacesand data files](https://docs.oracle.com/cd/B19306_01/server.102/b14220/physical.htm), [Space Management in Tablespaces](https://oracle-base.com/articles/9i/automatic-segment-free-space-management), [Tablespace management](https://docs.oracle.com/cd/B19306_01/server.102/b14231/tspaces.htm).

**[T1][T2][No. of Hrs. 11]**

**UNIT-II**

[**Database user security** – Creating a user, Authenticating users, Unlocking a user account and resetting the password, Privileges and role, System privileges, object privileges.](https://docs.oracle.com/cd/B19306_01/network.102/b14266/admusers.htm#DBSEG10000)

[**Managing Schema Objects** – Table types, Action with tables, creating views, sequences](https://docs.oracle.com/cd/B19306_01/server.102/b14231/general.htm), [What is partition and why use it?](http://dwhlaureate.blogspot.com/2012/08/what-is-partition-in-oraclewhy-to-use.html) [Creating a Partition](https://docs.oracle.com/cd/E18283_01/server.112/e16541/part_admin001.htm), [Partitioning method](http://etutorials.org/SQL/Mastering+Oracle+SQL/Chapter+10.+Partitioning/10.4+Partitioning+Methods/), [Index organised tables and heap tables](https://oracle-base.com/articles/8i/index-organized-tables), [heap tables](http://psoug.org/definition/heap.htm), [creating index-organised tables](https://oracle-base.com/articles/8i/index-organized-tables), [cluster](https://docs.oracle.com/cd/B28359_01/server.111/b28310/clustrs001.htm#ADMIN11739), [cluster types](http://www.dba-oracle.com/real_application_clusters_rac_grid/cluster_types.htm), [sorted hash cluster](http://www.dba-oracle.com/t_sorted_hash_clusters.htm).

[**Managing data and concurrency** – Manipulating with data through SQL](https://searchsqlserver.techtarget.com/feature/SQL-Server-and-data-manipulation-in-T-SQL), [function procedure, packages, Triggers](https://docs.oracle.com/cd/B25329_01/doc/appdev.102/b25108/xedev_programs.htm), [locking concepts](http://www.methodsandtools.com/archive/archive.php?id=83), [detecting and resolving lock conflicts.](https://en.wikibooks.org/wiki/Oracle_Database/Monitoring_and_Resolving_Lock_Conflicts)

**[T1][T2][No. of Hrs. 11]**

**UNIT-III Managing undo Data** – Monitoring Undo, Administering Undo, Configuring Undo Retention, Sizing Undo tablespace.

**Implementing database security** – database transparent encryption (TDE), TDE Process, Implementing TDE.

**Performance management** - troubleshooting, tuning.

**[T1][T2][No. of Hrs. 10]**

**UNIT-IV**

**Performing Backup and Recovery** – Configuring Recovery Manager, using Recovery manager, Recovering from noncritical Losses , recovery from loss of control file , data file and redo file.

**Performing flashback** – Flashback database , Flashback database Architecture, Configuring flashback Database using enterprise manager, Monitoring Flashback database

**Moving data**- General Architecture , Loading data with SQL \*loader , Data pump , Data pump export and import.

**[T1][T2][No. of Hrs. 11]**

**Text Books:**

[T1] Sam R. Alapati “ Expert Oracle Database 11G Administration “ Dreamtech Press.

[T2] Darl Kuhn “Pro Oracle Database 11g Administration”, Apress

**References Books:**

[R1] Ken Simmons, Sylvester, Carstarphen” Pro SQL Server 2012 Administration”, Dreamtech Press

[R2] Sheeri K Cabral, Keith Murphy,” MySQL Administrator's Bible” John Wiley & Sons

[R3] Steve Fogel, Paul Lane, “Oracle Database Administrator’s Guide, 10g” Oracle

[R4] Craig S. Mullins, “Database Administration”, Addison-Wesley