



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

**FACULTY OF COMPUTING AND INFORMATICS
DEPARTMENT OF COMPUTER SCIENCE**

QUALIFICATION: BACHELOR OF COMPUTER SCIENCE	
QUALIFICATION CODE: 07BACS	LEVEL: 7
COURSE NAME: DATABASE ADMINISTRATION	COURSE CODE: DBA721S
DATE: JULY 2023	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 100

SECOND OPPORTUNITY/SUPPLEMENTARY EXAMINATION QUESTION PAPER	
EXAMINERS	MR. ERICKY IIPUMBU MS. ALBERTINA SHILONGO
MODERATOR	DR. AMER DHEEDAN

THIS QUESTION PAPER CONSISTS OF 5 PAGES (Including this front page)

INSTRUCTIONS

1. Answer ALL the questions on the answer scripts provided.
2. Write clearly and neatly.
3. Be guided by the number of marks allocated when answering the questions.
4. Show all your calculations.
5. Number your questions clearly.

Question 1: Write down the question number and the correct answer next to it. [20 Marks]

- 1) Which tablespace stores SQL statements performing sort operations
 - a) Default tablespace
 - b) Temporary table space
 - c) Permanent table space
 - d) User table space

- 2) The default used defined size for an extent is 1 MB
 - a) 1 KB
 - b) 1 GB
 - c) 1 TB

- 3) Which of the following is not a component of Oracle Manager Cloud Control
 - a) Oracle Management Repository (OMR):
 - b) Oracle Management Service (OMS)
 - c) Oracle Management Agent
 - d) Oracle Manager Database Express

- 4) The table spaces below are created by default except _____
 - a) USR
 - b) Oracle
 - c) TEMP
 - d) UNDOTBS1

- 5) Which of the following privileges manages data encryption operations?
 - a) SYSDBA
 - b) SYSOPR
 - c) SYSKM
 - d) SYSBACKUP

- 6) Which of the following memory structures contains data and control information for each server process.
 - a) SGA
 - b) PGA
 - c) UGA
 - d) NGA

- 7) database. is the preferred way to recover a database after a transaction in progress terminates abnormally?

- a) Rollback
 - b) Roll forward
 - c) Switch to duplicate database
 - d) Reprocess transactions
- 8) When an Oracle database is created, which user/s is automatically created and granted the DBA role?
- a) SYS
 - b) SYSTEM
 - c) SGA
 - d) Both a and b
- 9) Which process connects to the Oracle instance and is started when a user establishes a session?
- a) Database Process
 - b) User Process
 - c) Background Process
 - d) Application Process
- 10) Which Oracle edition was the first edition that extended database abilities to be hosted on the cloud?
- a) Oracle Database 9i
 - b) Oracle Database 10g
 - c) Oracle database 8i
 - d) Oracle database 21C
- 11) To start listeners in Oracle, you use the following command:
- a) lsnrctl start
 - b) listeners start
 - c) Lis starts
 - d) None of the above
- 12) _____ a combination of memory and background processes. Boolean
- a) An instance
 - b) Daemon
 - c) Parameter File
 - d) And index
- 13) When is an Oracle database created and given the role of ensuring data availability?
- a) SYSTEM
 - b) SGA
 - c) Both a and b

- 14) _____ is a space allowance given to tablespace.
- a) Memory
 - b) Quota
 - c) file
 - d) Disk Space
- 15) Which of the following tasks is irrelevant when configuring an HTTP listener port for a database instance using Enterprise Manager Database Express in Oracle?
- a) Verify DISPATCHERS parameter
 - b) Use DBMS_XDB.setHTTPPort procedure
 - c) Use Oracle_xdb.setHTTPPort Procedure
 - d) Launch Enterprise Manager Database Express
- 16) Table space can be dropped with its context(segment).
- a) True
 - a) False
- 17) Schema objects are the Physical structures of a database.
- a) True
 - b) False
- 18) A username can exceed 30 bytes in Oracle.
- a) True
 - b) False
- 19) SQL * provides a graphical user interface to the Oracle database, enabling you to perform management operations.
- a) True
 - b) False
- 20) SYSDBG does not have shutdown privilege on Oracle.
- a) True
 - b) False

Question 2: Structured Questions

[50]

2.1 Discuss any five challenges that DBAs face in the commissioning of their duties with / modern Heterogeneous database platforms. (10)

2.2 You were recently appointed as Junior Database Administration in an organisation. You were presented with a problem whereby the HR department needs to purchase an application that uses

Oracle database as the repository for application data. Your job is to recommend a suitable application install and configure the Oracle Database 10g software on the server. As the DBA, how would you go about this? (6)

2.3 Distinguish the following database/Oracle terms. (10)

- a) SGA and PGA:
- b) Segment and Extent
- c) Table and view
- d) Index and Sequence
- e) Trigger and Package

2.3 List and explain any **three (3)** components of SGA. (6)

2.4 When starting the database, the process passes through these phases: **start-up** → **amount** → **mount** → **open**. Explain what happens during each phase or step. (6)

2.5 Mention and explain **five (5)** tools and technologies available to move the data in databases. Are there any limitations or compatibility issues with these tools? (12)

Question 3: Long questions and Practical [38]

3.1 The disk on which your redo log file is located is corrupted. As a result, you decide to relocate the redo log files to a different disk. After you shut down the database, what actions can you take to relocate the redo the log file, and what changes will you make to the database? (12)

3.2 Describe what each of the following SQL commands achieve in Oracle? (10)

- a) CONNECT s cott/tiger
- b) DESC emp
- c) LSNRCTL>
- d) lsnrctl STOP
- e) APPEND

f) 3.3 As a DBA in your organisation, you have been asked to implement various approved security policies for the organisation. You have created a user profile NUST_user. How would you implement these new security policies using the command prompt?

- a) Every password should expire after every 30 Days. (2)
- b) If a user attempts unsuccessfully to log in to the databases for 5 times the account should be deactivated for one day.

Paper ends

