



**NNAMIBIA UNIVERSITY  
OF SCIENCE AND TECHNOLOGY**

**FACULTY OF COMPUTING AND INFORMATICS**

**DEPARTMENT OF COMPUTER SCIENCE**

<b>QUALIFICATION:</b> DIPLOMA IN GEOMATICS NQF: 6 BACHELOR OF BUSINESS COMPUTING NQF: 7 BACHELOR OF PROPERTY STUDIES HONS. NQF: 8 BACHELOR OF INFORMATION TECHNOLOGY (SYSTEMS ADMINISTRATION AND NETWORKS) NQF: 7	
<b>QUALIFICATION CODE:</b> 27DGEM, 80BSBC, 27BPRS, 80BSAN	<b>LEVEL:</b> 6
<b>COURSE:</b> INTRODUCTION TO DATABASES 1B	<b>COURSE CODE:</b> IDB220S
<b>DATE:</b> JANUARY 2020	<b>SESSION:</b> 2
<b>DURATION:</b> 3 HOURS	<b>MARKS:</b> 100

<b>SECOND OPPORTUNITY / SUPPLEMENTARY EXAMINATION QUESTION PAPER</b>	
<b>EXAMINER(S)</b>	<b>MS JOSEPHINA MUNTUUMO</b>
<b>MODERATOR:</b>	<b>MS ROSETHA KAYS</b>

**INSTRUCTIONS**

1. Answer **all questions**.
2. Please, ensure that your writing is **legible, neat and presentable**.
3. When answering questions you should be led by the allocation of marks.
4. Clearly, mark rough work as such or cross it out unambiguously in ink.
5. **QUESTION PAPER CONSISTS OF 5 PAGES** (Including this front page)

**SECTION A: THEORY****[MARKS: 40]**Question 1

[10 marks]

**Choose True or False**

	Questions	T	F
1	An alias can be used in the WHERE clause.		
2	The ORDER BY clause is always placed at the end of the statement.		
3	The SYSDATE function records the current date and time.		
4	System Privileges include gaining access to the databases.		
5	The WHERE clause restricts rows before inclusion in a group calculation.		
6	The HAVING clause is placed before the WHERE clause.		
7	INSTR function is used to find a position of a character in a character string.		
8	In Set operators, the numbers of columns in the Select clause do not need to match.		
9	All Group functions include NULLS in their calculations.		
10	The MOD function is used to find the remainder after division.		

Question 2

[2 marks]

Distinguish the difference between BETWEEN and IN operators in SQL?

Question 3

[4 marks]

Describe a view in SQL?

Question 4

[2 marks]

Explain the meaning of an Index in SQL?

Question 5

[2 marks]

What is the usage of SQL functions? Name any two (2)

Question 6

[2 marks]

What do you understand by case manipulation functions?

Question 7

[2 marks]

Explain the meaning of character-manipulation functions?

Question 8

[2 marks]

What is the usage of the DISTINCT keyword?

Question 9

[4 marks]

List the set operators in SQL?

Question 10

[1 mark]

Is it possible to sort a column using a column alias?

Question 11

[2 marks]

Explain the difference between INNER and OUTER Joins.

Question 12

[1 mark]

What is the usage of NVL() function?

Question 13

[2 Marks]

Examine the code below. Determine what is wrong with the following statement. Rewrite the code correctly.

```
SELECT job_id, AVG(Salary)
FROM Employees
WHERE AVG(Salary) > 8000;
```

Question 14

[1 mark]

Study the statement below and evaluate what the code will achieve.

```
SELECT e.last_name, e.department_id, d.department name
FROM employees e LEFT OUTER JOIN departments d
ON (e.department id = d.department id);
```

Question 15

[3 marks]

What does DCL, DML and DDL stands for?

**SECTION B: PRACTICAL****[MARKS: 60]**

The tables that will be used for the following section are: employees; job\_history; jobs; departments; countries; locations; regions; Semester Marks;

Question 1 [4 marks]

Write an SQL Statement to display the first\_name, last\_name of employees with the pattern 'l\_x' in their first name.

Question 2 [3 marks]

Write an SQL statement to retrieve the name of all the employees who are working in department number 20 and 80.

Question 3 [7 marks]

Write an SQL Statement to display the first name, last name, department number and department name, for all employees for departments 80 or 40.

Question 4 [3 marks]

Write an SQL Statement to create a view for all salesmen with columns salesman\_id, name, and city.

Question 5 [3 marks]

Write an SQL Statement to update the city name which salesman\_id is '5007'

Question 6 [9 marks]

Write a SQL statement to create a table named Semester\_Marks using the fields (Student\_Reg\_No, FirstName, LastName, Total\_Marks, No\_Courses, Average\_Mark) provided. Choose relevant data types.

Question 7 [5 marks]

Write an SQL statement to populate three (3) rows to the table Semester\_Marks (values of your choice)

Question 8 [2 marks]

Write an SQL statement to confirm that your data has been added to the table.

Question 9 [2 marks]

Write an SQL statement to remove the table Semester\_Marks.

Question 10 [5 marks]

Write an SQL statement to display the first name, last name, department number, and department name for each employee.

Question 11 [6 marks]

The HR department needs a report that displays the last name, department number, and job ID of all employees whose department location ID is 1700.

Question 12 [5 marks]

Write an SQL statement to get the job ID and maximum salary of the employees where maximum salary is greater than or equal to \$4000.

Question 13

[6 marks]

The HR department needs a list of department IDs for departments that do not contain the job ID ST\_CLERK. Use the set operators to create this report.

<<<<<End of Exam Paper>>>>