-- 1. Pass DEPTNO to the function (named sumSalary) and calculate the sum of salary.

DROP FUNCTION sumSalary;

DELIMITER $$

CREATE FUNCTION sumSalary(deptno\_in NUMBER) RETURN NUMBER AS

total\_salary NUMBER;

BEGIN

SELECT SUM(salary) INTO total\_salary FROM emp WHERE deptno = deptno\_in;

RETURN total\_salary;

END $$

DELIMITER ;

-- 2. Create a new table called STUDENT\_NEW and a function to auto-generate studentID.

DROP TABLE STUDENT\_NEW;

DELIMITER $$

CREATE TABLE STUDENT\_NEW (

studentID NUMBER PRIMARY KEY,

namefirst VARCHAR2(50),

namelast VARCHAR2(50),

DOB DATE,

emailID VARCHAR2(100)

);

DROP FUNCTION autoNumber;

CREATE FUNCTION autoNumber RETURN NUMBER AS

new\_studentID NUMBER;

BEGIN

SELECT NVL(MAX(studentID), 0) + 1 INTO new\_studentID FROM STUDENT\_NEW;

RETURN new\_studentID;

END $$

DELIMITER ;

-- 3. Write a function to return username and password based on email-ID.

DROP FUNCTION getCredentials;

DELIMITER $$

CREATE FUNCTION getCredentials(email\_in VARCHAR2) RETURN VARCHAR2 AS

v\_username VARCHAR2(50);

v\_password VARCHAR2(50);

BEGIN

SELECT username, password INTO v\_username, v\_password FROM LOGIN WHERE emailID = email\_in;

RETURN 'Username: ' || v\_username || ', Password: ' || v\_password;

EXCEPTION

WHEN NO\_DATA\_FOUND THEN

RETURN 'Employee not exists';

END $$

DELIMITER ;

-- 4. Write a function to calculate the sum of (10th, 12th, and BE) marks based on studentID.

DROP FUNCTION calculateTotalMarks;

DELIMITER $$

CREATE FUNCTION calculateTotalMarks(studentID\_in NUMBER) RETURN NUMBER AS

total\_marks NUMBER;

BEGIN

SELECT NVL(10th\_marks, 0) + NVL(12th\_marks, 0) + NVL(BE\_marks, 0) INTO total\_marks

FROM STUDENT\_NEW

WHERE studentID = studentID\_in;

RETURN total\_marks;

EXCEPTION

WHEN NO\_DATA\_FOUND THEN

RETURN 0; -- or you can return NULL or any other value to indicate not found

END $$

DELIMITER ;