CENG364 – Database Applications
Assignment 2 (Due: Mon. Nov. 16 at 23:59:59, submit to LMS)

Note: You must complete all assignments **on your own.**

(For the below questions, assume that we are using the HR schema. Make sure you use the correct column names.)

Warning: Always read the entire question. You will lose points if you miss something.

Part 1 *(40 points)*

1. Write a statement to display the last name and department ID of all employees in departments 20 or 50 in ascending alphabetical order by last name. *(8 points)*

2. Write a statement to display the last name, salary, and commission percentage for all employees who earn commissions. Sort data in descending order of salary and commissions. Use the column's numeric position in the `ORDER BY` clause. *(8 points)*

3. Write a statement to display the last name and salary of employees who earn more than an amount that the user specifies after a prompt. *(8 points)*

4. Write a statement to display the last names of all employees who have both an "a" and an "e" in their last name. *(8 points)*

5. Write a statement to display the last name, job, and salary for all employees whose job is a sales representative (SA_REP) or a stock clerk (ST_CLERK), and whose salary is not equal to $2,500, $3,500, or $7,000. *(8 points)*

Part 2 *(32 points)*

6. Write a statement to display the employee number, last name, salary, and salary increased by 15.5% (expressed as the nearest whole number, with column label `New Salary`) for each employee. *(8 points)*

7. Modify your query from Question 6 to add a column that subtracts the old salary from the new salary. Label the column `Increase`. *(4 points)*

8. Write a query that displays the last name (with the first letter in uppercase and all the other letters in lowercase) and the length of the last name for all employees whose last name starts with the letters "J," "A," or "M." Give each column an appropriate label. Sort the results by the employees' last names in alphabetical order. *(8 points)*

9. Rewrite the query from Question 8 so that the user is prompted to enter a letter that starts the last name. For example, if the user enters `H` (capitalized) when prompted for a letter, then the output should show all employees whose last name starts with the letter "H." *(4 points)*

10. Create a query to display the last name and the number of weeks employed for all employees in department 90. Label the number of weeks column as `TENURE`. Truncate the number of weeks value to 0 decimal places. Show the records in descending order of the employee's tenure. *(8 points)*

Part 3 *(28 points)*

11. Write a query that displays the employees' last names and commission percentages. If an employee does not earn commission (*null* commission), show "No Commission." Label the commission column COMM. *(8 points)*

Hint: Data types must match in the NVL function.

12. Write a query to display each employee's last name, hire date, and salary review date labeled as REVIEW, which is the first Monday after six months of service. Format the review dates to appear in the format similar to "Monday, the Thirty-First of July, 2000." *(10 points)*

Hint: You need to calculate the review date. Refer to the date functions in Lesson 4 and the date formats in Lesson 5, which can be found in Student Guide vol. 1

13. Using the DECODE function, write a query that displays the grade of all employees based on the value of the JOB_ID column, using the following data: *(10 points)*

Job	Grade
AD_PRES	A
ST_MAN	B
IT_PROG	C
SA_REP	D
ST_CLERK	E
None of the above	0