***LAB 8***

***-- 1***

***-- A***

**SELECT DISTINCT STUDENT.ID, STUDENT.NAME, STUDENT.SURNAME**

**FROM STUDENT**

**INNER JOIN SIGNUP ON STUDENT.ID = SIGNUP.STUDENT\_ID**

**INNER JOIN GRADE ON GRADE.SIGNUP\_ID = SIGNUP.ID**

**WHERE GRADE.VALUE < 7**

***-- B***

**SELECT STUDENT.ID, STUDENT.NAME, STUDENT.SURNAME**

**FROM STUDENT**

**WHERE STUDENT.ID IN (**

**SELECT SIGNUP.STUDENT\_ID**

**FROM SIGNUP**

**WHERE SIGNUP.ID IN (**

**SELECT GRADE.SIGNUP\_ID**

**FROM GRADE**

**WHERE GRADE.VALUE < 7**

**)**

**)**

***-- C***

**SELECT STUDENT.ID, STUDENT.NAME, STUDENT.SURNAME**

**FROM STUDENT**

**INNER JOIN SIGNUP ON STUDENT.ID = SIGNUP.STUDENT\_ID**

**INNER JOIN GRADE ON GRADE.SIGNUP\_ID = SIGNUP.ID**

**GROUP BY STUDENT.ID, STUDENT.NAME, STUDENT.SURNAME**

**HAVING MIN(GRADE.VALUE) < 7**

***-- D***

**SELECT STUDENT.ID, STUDENT.NAME, STUDENT.SURNAME**

**FROM STUDENT**

**INNER JOIN SIGNUP ON STUDENT.ID = SIGNUP.STUDENT\_ID**

**INNER JOIN GRADE ON GRADE.SIGNUP\_ID = SIGNUP.ID**

**MINUS**

**SELECT STUDENT.ID, STUDENT.NAME, STUDENT.SURNAME**

**FROM STUDENT**

**INNER JOIN SIGNUP ON STUDENT.ID = SIGNUP.STUDENT\_ID**

**INNER JOIN GRADE ON GRADE.SIGNUP\_ID = SIGNUP.ID**

**GROUP BY STUDENT.ID, STUDENT.NAME, STUDENT.SURNAME**

**HAVING MIN(GRADE.VALUE) >= 7**

***-- 2***

**SELECT STUDENT.ID**

**FROM STUDENT**

**INNER JOIN SIGNUP ON STUDENT.ID = SIGNUP.STUDENT\_ID**

**INNER JOIN GRADE ON GRADE.SIGNUP\_ID = SIGNUP.ID**

**GROUP BY STUDENT.ID**

**HAVING (MIN(GRADE.VALUE) < 5 OR MAX(GRADE.VALUE) = 10)**

**MINUS**

**SELECT STUDENT.ID**

**FROM STUDENT**

**INNER JOIN SIGNUP ON STUDENT.ID = SIGNUP.STUDENT\_ID**

**INNER JOIN GRADE ON GRADE.SIGNUP\_ID = SIGNUP.ID**

**GROUP BY STUDENT.ID**

**HAVING (MIN(GRADE.VALUE) < 5 AND MAX(GRADE.VALUE) = 10)**

***-- 3***

**SELECT COURSE.ID, COURSE.NAME, TEACHER.NAME || ' ' || TEACHER.SURNAME AS TEACHER**

**FROM COURSE**

**INNER JOIN TEACHER ON COURSE.TEACHER\_ID = TEACHER.ID**

**INNER JOIN SIGNUP ON COURSE.ID = SIGNUP.COURSE\_ID**

**INNER JOIN GRADE ON GRADE.SIGNUP\_ID = SIGNUP.ID**

**GROUP BY COURSE.ID, COURSE.NAME, TEACHER.NAME, TEACHER.SURNAME**

**HAVING COUNT(CASE WHEN GRADE.ELP = 'E' AND GRADE.VALUE >= 5 THEN 1 END) > (**

**SELECT COUNT(SIGNUP.ID) \* 0.3**

**FROM SIGNUP**

**GROUP BY SIGNUP.COURSE\_ID**

**HAVING SIGNUP.COURSE\_ID = COURSE.ID**

**)**

***-- 4***

**SELECT DEPARTMENT.FACULTY**

**FROM DEPARTMENT**

**GROUP BY DEPARTMENT.FACULTY**

**HAVING (**

**SELECT COUNT(DISTINCT STUDENT.STUDY\_YEAR)**

**FROM STUDENT**

**INNER JOIN SIGNUP ON STUDENT.ID = SIGNUP.STUDENT\_ID**

**INNER JOIN GRADE ON GRADE.SIGNUP\_ID = SIGNUP.ID**

**WHERE STUDENT.DEPARTMENT = DEPARTMENT.ID AND GRADE.VALUE = 10 AND GRADE.ELP = 'E'**

**AND EXTRACT(YEAR FROM GRADE.GDATE) = EXTRACT(YEAR FROM SYSDATE)**

**) = 4**

***-- 5***

**SELECT STUDENT.ID, STUDENT.NAME, STUDENT.SURNAME, (**

**SELECT**

**AVG((**

**2 \* MAX(CASE WHEN GRADE.ELP = 'E' THEN GRADE.VALUE END) +**

**AVG(CASE WHEN GRADE.ELP IN ('L', 'P') THEN GRADE.VALUE END)**

**)/ 3)**

**FROM GRADE**

**INNER JOIN SIGNUP ON GRADE.SIGNUP\_ID = SIGNUP.ID**

**WHERE STUDENT.ID = SIGNUP.STUDENT\_ID**

**GROUP BY SIGNUP.ID**

**) AS "FINAL\_GRADE"**

**FROM STUDENT**

**INNER JOIN SIGNUP ON STUDENT.ID = SIGNUP.STUDENT\_ID**

**INNER JOIN GRADE ON SIGNUP.ID = GRADE.SIGNUP\_ID**

**GROUP BY STUDENT.ID, STUDENT.NAME, STUDENT.SURNAME**

**HAVING (**

**SELECT COUNT(DISTINCT SIGNUP.COURSE\_ID)**

**FROM SIGNUP**

**WHERE SIGNUP.STUDENT\_ID = STUDENT.ID AND EXTRACT(YEAR FROM SIGNUP.YEAR) = EXTRACT(YEAR FROM SYSDATE)**

**) = (**

**SELECT COUNT(DISTINCT SIGNUP.ID)**

**FROM GRADE**

**INNER JOIN SIGNUP ON GRADE.SIGNUP\_ID = SIGNUP.ID**

**WHERE STUDENT.ID = SIGNUP.STUDENT\_ID AND EXTRACT(YEAR FROM SIGNUP.YEAR) = EXTRACT(YEAR FROM SYSDATE)**

**GROUP BY SIGNUP.STUDENT\_ID**

**HAVING MAX(CASE WHEN GRADE.ELP = 'E' THEN GRADE.VALUE END) >= 5**

**AND AVG(CASE WHEN GRADE.ELP IN ('L', 'P') THEN GRADE.VALUE END) >= 4.5**

**AND COUNT(DISTINCT GRADE.ELP) = 3**

**)**