**Prova II**

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**Questão 1:**

**1.a)**

SELECT idpes, nomepes, salariofun

FROM funcionario NATURAL JOIN pessoa;

**1.b)**

SELECT idpes, nomepes, salariofun, valorbol

FROM funcionario NATURAL JOIN pessoa NATURAL JOIN bolsista

WHERE valorbol > salariofun;

**1.c)**

SELECT idpes, nomepes, 'bolsista' as tipo, valorbol as valor

FROM pessoa NATURAL JOIN bolsista

UNION

SELECT idpes, nomepes, 'funcionario' as tipo, salariofun as valor

FROM pessoa NATURAL JOIN funcionario

ORDER BY idpes

**1.d)**

SELECT idpes, nomepes

FROM pessoa NATURAL JOIN pesati

GROUP BY idpes HAVING sum(idati) > 1

**1.e)**

SELECT f.idpes, nomepes, nomepro

FROM pessoa NATURAL JOIN funcionario as f LEFT OUTER JOIN projeto as p ON f.idpes = p.idpes

ORDER BY nomepes

**1.f)**

SELECT idpes, nomepes, count(idati) as QtdeAtividades

FROM pessoa NATURAL JOIN pesati NATURAL JOIN atividade NATURAL JOIN bolsista

GROUP BY idpes HAVING count(idati) > 3

**1.g)**

SELECT nomepro, descricaoati, idpes, nomepes

FROM projeto NATURAL JOIN atividade NATURAL JOIN pesati NATURAL JOIN pessoa as p

WHERE NOT EXISTS

(SELECT \* FROM atividade as a

WHERE NOT EXISTS

(SELECT \* FROM pesati

WHERE p.idpes = pesati.idpes AND a.idati = pesati.idati))

**Questão 2:**

WITH RECURSIVE hAtiv (idpro, nivel, idatisuper, idati, descricaoati) AS (

SELECT idpro, 0, idatisuper, idati, descricaoati

FROM atividade

WHERE idatisuper is null

UNION ALL

SELECT child.idpro, nivel+1, child.idatisuper, child.idati, child.descricaoati

FROM hAtiv parent, atividade child

WHERE child.idatisuper = parent.idati

)

SELECT DISTINCT \*

FROM hAtiv

ORDER BY idpro, nivel, idatisuper, idati

**Questão 3:**

CREATE VIEW vtop AS

SELECT cpf, nomepes, 'bolsista' as tipopes, valorbol as maxvalue

FROM pessoa NATURAL JOIN bolsista

UNION

SELECT cpf, nomepes, 'funcionario' as tipopes, salariofun as maxvalue

FROM pessoa NATURAL JOIN funcionario;

**3.a)**

SELECT \* FROM vtop WHERE tipopes = 'funcionario';

**3.b)**

SELECT \* FROM vtop WHERE tipopes = 'bolsista';

**3.c)**

SELECT \* FROM vtop

WHERE tipopes = 'funcionario' AND NOT EXISTS

(SELECT \* FROM vtop WHERE tipopes = 'bolsista')