

Prova II

Vitor Barbosa Lemes Fernandes

Nº: 11921BCC035

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')
```