DBMS

Assignment-2

1) $\sigma_{age>50}(Emp)$

2) $\pi_{budget}(\sigma_{managerid='x' \vee managerid='y'}(Dept))$

3) $\sigma_{salary>50k \wedge salary<70k}(Emp)$

4) $\sigma_{salary>90k \wedge age<27}(Emp)$

5) $\sigma_{budget>100L \wedge managerid='NULL'}(Dept)$

6) $\pi_{eid,ename,salary,did}(Emp \bowtie Works)$

7) $\pi_{eid,ename,salary,dname}(Emp \bowtie Works \bowtie Dept)$

8) $\pi_{dname}(Dept) - \pi_{t.dname}(\sigma_{Dept.budget > t.budget}(Dept \times \rho_t(Dept)))$

9) $\pi_{ename,age,did}(Emp \bowtie Dept)$

10) $\sigma_{Emp.salary > t.salary}(\rho_t(\sigma_{ename='x'}(Emp)) \times Emp)$

11) $\sigma_{Emp.age < t.age}((\rho_t(\sigma_{ename='x'}(Emp)) \times Emp))$

12) $\sigma_{did='D'}\left(\left(\sigma_{Emp.age < t.age}\left(\left(\rho_t(\sigma_{ename='x'}(Emp)) \times Emp\right)\right)\right) \bowtie Works\right)$

13) $\pi_{age}\left(\pi_{age,eid}(Emp) - \pi_{t.age,t.eid}\left(\sigma_{Emp.salary > t.salary}(Emp \times \rho_t(Emp))\right)\right)$

14) $\pi_{salary}\left(\mathcal{G}_{did,\ max(salary)}(Emp \bowtie Works \bowtie Dept)\right)$

15) $\pi_{salary}(\gamma_{did, average(salary)}(Emp \bowtie Works \bowtie Dept))$

16) $\gamma_{did, sum(salary)}(Emp \bowtie Works \bowtie Dept))$

17) $\pi_{age}(\gamma_{did, max(age)}(Emp \bowtie Works \bowtie Dept))$

18) $\gamma_{did(count(eno))}(Emp \bowtie Works \bowtie Dept))$

19) $\pi_{name}(\gamma_{did, max(age)}(Emp \bowtie Works \bowtie Dept))$

20) $\pi_{name}(\gamma_{did, max(salary)}(Emp \bowtie Works \bowtie Dept))$

21) $t_1 \leftarrow \pi_{did}(\sigma_{managerid='x'}(Dept))$

$t_2 \leftarrow \pi_{did, eid}(Works)$

$t \leftarrow t_2 \div t_1$

22) $t_1 \leftarrow \pi_{did}(\sigma_{managerid='x'}(Dept))$

$t_2 \leftarrow \pi_{did, eid}(Works)$

$t \leftarrow t_2 \div t_1$

23) $\pi_{did, dname, eid, ename}((Emp \bowtie Works) \bowtie Dept)$

24) $\pi_{dname}(\sigma_{budget>10L}(Dept)) \cap \pi_{dname}(\sigma_{budget>20L}(Dept))$

25) $\pi_{dname}(\sigma_{budget>20L}(Dept)) - \pi_{dname}(\sigma_{managerid='x'}(Dept))$