***I. SCHEMAS***

*Table 1 :* ***STUDIES***

*PNAME (VARCHAR), SPLACE (VARCHAR), COURSE (VARCHAR), CCOST (NUMBER)*

*Table 2 :* ***SOFTWARE***

*PNAME (VARCHAR), TITLE (VARCHAR), DEVIN (VARCHAR), SCOST (NUMBER), DCOST (NUMBER), SOLD (NUMBER)*

*Table 3 :* ***PROGRAMMER***

*PNAME (VARCHAR), DOB (DATE), DOJ (DATE), SEX (CHAR), PROF1 (VARCHAR), PROF2 (VARCHAR), SAL (NUMBER)*

***LEGEND :***

*PNAME – Programmer Name, SPLACE – Study Place, CCOST – Course Cost, DEVIN – Developed in, SCOST – Software Cost, DCOST – Development Cost, PROF1 – Proficiency 1*

***QUERIES :***

1. *Display the names and date of birth of all programmers born in April.*

*select pname,dob from programmer where month(dob)='4'*

1. *How much revenue has been earned through the sale of packages developed in C.*

*ans : select scost\*sold as revenue from software where devin****='c'***

1. *Display the details of packages whose sales crossed the 5000 mark.*

*Ans: select pname,title,devin,scost,dcost,sold from programmer*

*where sold>5000*

1. *How many programmers know either C or Pascal?*

*Ans: 1)select count(PNAME) from PROGRAMMER where (PROF1='C' or PROF2='C') OR (PROF1='pascal' or PROF2='pascal')*

*select count(PNAME) from PROGRAMMER where prof1 in ('c','pascal') OR prof2 in ('c','pascal')*

1. *Find out the number of copies which should be sold in order to recover the development cost of each package.*

*select round((dcost/scost),0) as [no of copies] from software*

1. *Display the details of packages for which the development cost has been recovered.*

*Ans: select pname,title,devin,scost,dcost,sold from software*

*where (scost\*sold)>=dcost*

1. *How many programmers paid 10000 to 15000 for the course?*

*Ans: select count(PNAME) FROM STUDIES where CCOST BETWEEN 10000* ***and*** *15000*

1. *How old is the oldest male programmer?*

*ans:* select max((year(getdate())-year(dob))) [oldest male programmer] from programmer where sex='m'

1. *How many programmers don’t know C and C++?*

*ans:select count(pname) from programmer where (prof1<>'c' and prof2<>'c') and (prof1<>'c++' and prof2<>'c')*

1. *Calculate the experience in years for each programmer and display along with their names in descending order.*

*select pname,year(getdate())-year(doj) from programmer order by pname desc*

1. *Who are the programmers who celebrate their birthdays during the current month?*

*select pname,dob from programmer where month(dob)=month(getdate())*

1. *What are the languages known by the male programmers?*

*Ans: select PNAME,PROF1 language1,PROF2 language2 from PROGRMMMER where sex='M'*

1. *Display the costliest package developed by each programmer.*

*select pname,max(scost) from software group by pname*

1. *Produce the following output for all the male programmers*

*Programmer   
 Mr. Arvind – has 15 years of experience*

*select 'mr '+ pname +' has ' + cast(year(getdate())-year(doj) as varchar) + ' years of experience ' from programmer WHERE sex='m'*

1. *What is the highest number of copies sold by a package?*

*select title,max(sold) from software group by title*

***II . SCHEMA :***

*Table 1 :* ***DEPT***

*DEPTNO (NOT NULL , NUMBER(2)), DNAME (VARCHAR2(14)),*

*LOC (VARCHAR2(13)*

*Table 2 :* ***EMP***

*EMPNO (NOT NULL , NUMBER(4)), ENAME (VARCHAR2(10)),*

*JOB (VARCHAR2(9)), MGR (NUMBER(4)), HIREDATE (DATE),*

*SAL (NUMBER(7,2)), COMM (NUMBER(7,2)), DEPTNO (NUMBER(2))*

*MGR is the empno of the employee whom the employee reports to. DEPTNO is a foreign key. COMM is the commission given to the employee.*

***QUERIES***

1. *List all the employees who have at least one person reporting to them.*

*Ans: select ename from emp where empno in (select mgr from emp)*

1. *List the employee details if and only if more than 10 employees are present in department no 10.*

*Ans: select ename from emp where empno in (select empno from emp where deptno='10' group by empno having count(empno)>=1)*

1. *List the name of the employees with their immediate higher authority.*

*Ans:* select e1.ename,e2.ename from emp e1 join emp e2 on e1.mgr=e2.empno

1. *List all the employees who do not manage any one.*

*Ans:* select ename from emp where empno not in (select mgr from emp group by mgr)

1. *List the employee details whose salary is greater than the lowest salary of an employee belonging to deptno 20.*

*ans: select \*from EMP where SAL>*(select MIN(SAL)from EMP where DEPTNO=20 )

1. *List the details of the employee earning more than the highest paid manager.*

*Ans: select \* from EMP where sal> (select MAX(SAL) from EMP where JOB='MANAGER' )*

1. *List the highest salary paid for each job.*

*Ans:* select max(SAL),JOB from EMP group by JOB

1. *Find the most recently hired employee in each department.*

*Ans:* select ename from emp where hiredate in (select max(hiredate) from emp group by deptno)

1. *In which year did most people join the company? Display the year and the number of employees.*

*Ans select max(total) from (select year(hiredate) as years,count(hiredate) as total from emp group by year(hiredate)) f*

1. *Which department has the highest annual remuneration bill?*

*Ans:* select top 1 sum(sal+comm) from emp group by deptno order by sum(sal+comm) desc

1. *Write a query to display a ‘\*’ against the row of the most recently hired employee.*

*Ans:* select case when hiredate in (select max(hiredate) from emp) then

ename + '\*'

else

ename

end from emp

1. *Write a correlated sub-query to list out the employees who earn more than the average salary of their department.*

*Ans:*

*select b.sal,b.deptno,a.salary from (select DEPTNO,avg(SAL) as salary from EMP group by deptno) a join emp b on a.deptno=b.deptno and b.sal>a.salary*

1. *Find the nth maximum salary.*

*Select min(sal) from emp where sal in (select top 4 sal from emp order by sal desc)*

*Ans:*

1. *Select the duplicate records (Records, which are inserted, that already exist) in the EMP table.*

*select empno,count(empno) from emp group by empno having count(empno)>1*

1. *Write a query to list the length of service of the employees (of the form n years and m months).*

*select ename +' has '+ cast(year(getdate())-year(hiredate) as varchar)+' years and '+ cast(month(getdate())-month(hiredate) as varchar)+' months of experience' from emp*