

Answer Sheet - SQL

Name: Isha Garg

Phone No.: 7053017594

Email: ishagarg989@gmail.com

Major Question 1

A) List the salary of all the employees.

```
SELECT salary FROM employee;
```

Insert Image-

The screenshot displays a SQL IDE interface. The top toolbar includes icons for file operations, execution, and a 'Limit to 1000 rows' dropdown. The query editor shows the following SQL code:

```
121
122 -- Major Question 1
123
124 -- a) List the salary of all the employees.
125 • SELECT salary FROM employee;
126
```

Below the query editor, the 'Result Grid' tab is active, showing a table with one column, 'salary', and ten rows of data:

salary
35000
32802
20500
32770
20500
32802
29105
25125
32770

At the bottom, the 'Output' pane shows the 'Action Output' table, which logs the execution of the query:

#	Time	Action	Message
✓ 122	21:24:47	SELECT salary FROM employee LIMIT 0, 1000	9 row(s) returned
✓ 123	21:25:01	SELECT salary FROM employee LIMIT 0, 1000	9 row(s) returned
✓ 124	21:25:05	SELECT salary FROM employee LIMIT 0, 1000	9 row(s) returned

On the right side of the IDE, there is a vertical toolbar with buttons for 'Result Grid', 'Form Editor', and 'Field Types'. A 'Read Only' indicator is visible at the bottom right.

B) Display the names of all employees with any “A” at any place of the name.

```
SELECT ename FROM employee WHERE ename LIKE '%a%' OR ename  
LIKE 'a%' OR ename LIKE '%a';
```

Insert Image –

The screenshot displays a database management interface. At the top, a SQL query is entered in a text area:

```
1  
2 • SELECT ename  
3 FROM employee  
4 WHERE ename LIKE '%a%' OR ename LIKE 'a%' OR ename LIKE '%a';  
5
```

Below the query editor, the 'Result Grid' shows the output of the query. The grid has a single column labeled 'ename' and contains the following names:

ename
AJIT NAYAK
BHAGWAT
JASWASI
UMASHANKAR
DEBASMITA
AJIT BEHERA
NIHAR NAYAK
MEENAKSHI
SATYA

At the bottom, the 'Output' section shows a log of actions:

#	Time	Action	Message
21	19:22:53	select * from employee LIMIT 0, 1000	9 row(s) returned
22	19:42:40	SELECT ename FROM employee WHERE ename LIKE "%a%" OR ename LIKE 'a%' OR ena...	9 row(s) returned
23	19:44:11	SELECT ename FROM employee WHERE ename LIKE "%a%" OR ename LIKE 'a%' OR ena...	9 row(s) returned

On the right side of the interface, there are buttons for 'Result Grid', 'Form Editor', and 'Field Types'. The bottom right corner features a watermark that reads 'Activat Go to Set'.

C) Show all employees who were hired in the first half of the month (Before the 16th of the month).

```
SELECT em.ename, dp.MGRSTARTD from employee as em
inner join department as dp on em.dno = dp.dnumber where day(dp.mgrstartd)
<16;
```

Insert Image -

Limit to 1000 rows

```
8
9  -- C)Show all employees who were hired in the first half of the month (Before the 16th of the month).
10 • SELECT em.ename, dp.MGRSTARTD from employee as em
11 inner join department as dp on em.dno = dp.dnumber where day(dp.mgrstartd) < 16;
12
13
```

Result Grid

ename	MGRSTARTD
AJIT NAYAK	1988-01-06

Result 29 Result 30 Result 31 Result 32 x

Output

Action Output

#	Time	Action	Message
32	17:37:41	SELECT em.ename, dp.MGRSTARTD from employee as em inner join department as dp on ...	1 row(s) returned

D) Display the name of all female employees.

```
SELECT ename FROM employee WHERE sex="F";
```

Insert Image -

The screenshot shows a database query tool interface. The top section displays the SQL query: `-- d) Display the name of all female employees` followed by `select ename from employee where sex="F";`. Below the query editor, the 'Result Grid' shows the output of the query, which includes the names 'DEBASMITA' and 'MEENAKSHI'. The bottom section, labeled 'Output', shows the execution log with three entries: a successful query execution at 21:07:53 returning 9 rows, a query execution at 21:11:18 returning 1 row, and the current query execution at 21:12:49 returning 2 rows.

ename
DEBASMITA
MEENAKSHI

#	Time	Action	Message
109	21:07:53	SELECT ename FROM employee WHERE ename like "%a%" or "a%" or "%a" LIMIT 0, 1000	9 row(s) returned
110	21:11:18	select em.ename, em.esmo, dp.MGRSTARTD from employee as em inner join department as...	1 row(s) returned
111	21:12:49	select ename from employee where sex="F" LIMIT 0, 1000	2 row(s) returned

E) Display the employee who is paid most in the company.

```
SELECT ename, salary FROM employee WHERE salary = (SELECT max(salary) FROM employee);
```

Insert Image –

The screenshot shows a database query editor with a toolbar at the top. The query editor contains the following SQL code:

```
136  
137  
138 -- e) Display the employee who is paid most in the company.  
139 • select ename, salary from employee where salary = (select max(salary) from employee);  
140  
141
```

Below the query editor, the 'Result Grid' is displayed, showing the results of the query:

ename	salary
AJIT NAYAK	35000

At the bottom, the 'Output' pane shows the execution log:

#	Time	Action	Message
✓ 112	21:14:13	select ename from employee where salary = (select max(salary) from employee) LIMIT 0, 1000	1 row(s) returned
✓ 113	21:14:33	select ename, salary from employee where salary = (select max(salary) from employee) LIMIT ...	1 row(s) returned
✓ 114	21:14:37	select ename, salary from employee where salary = (select max(salary) from employee) LIMIT ...	1 row(s) returned

Major Question 2

A) Display employee name, address, department no and department name.

```
SELECT em.ename, em.address, em.dno, dp.dname FROM employee as em  
inner join department as dp on em.dno = dp.dnumber;
```

Insert Image –

The screenshot shows a database query editor with a query window and a results grid. The query window contains the following SQL code:

```
139  
140 -- Major Question 2  
141  
142 -- A) Display employee name, address, department no and department name.  
143 • select em.ename, em.address, em.dno, dp.dname from employee as em inner join department as dp on em.dno = dp.dnumber;  
144
```

The results grid displays the following data:

ename	address	dno	dname
AJIT NAYAK	73 BOSTON	1	ADMIN
BHAGWAT	55 FLORIDA	2	PROJECT
UMASHANKAR	26 FINE OAK	2	PROJECT
DEBASMITA	1 QUEENS LAND	2	PROJECT
AJIT BEHERA	10 KALINGA	3	ACADEMIC
NIHAR NAYAK	73 DALLAS	3	ACADEMIC
MEENAKSHI	73 BRIKLY	3	ACADEMIC
JASWASI	17 BOSTON	4	RESEARCH
SATYA	26 FINE OAK	4	RESEARCH

The bottom of the screenshot shows the 'Output' section with the following log entries:

#	Time	Action	Message
113	21:14:33	select ename, salary from employee where salary = (select max(salary) from employee) LIMIT ...	1 row(s) returned
114	21:14:37	select ename, salary from employee where salary = (select max(salary) from employee) LIMIT ...	1 row(s) returned
115	21:15:37	select em.ename, em.address, em.dno, dp.dname from employee as em inner join department...	9 row(s) returned

B) Display all the employees who are *not in* ACADEMIC department

```
SELECT em.*, dp.dname FROM employee as em inner join department as dp
on em.dno = dp.dnumber WHERE dp.dname not like "Academic";
```

Insert Image –

The screenshot shows a database query editor with a query window and a results grid. The query window contains the following SQL query:

```
-- B) Display all the employees who are not in ACADEMIC department
select em.*, dp.dname from employee as em inner join department as dp on em.dno = dp.dnumber where dp.dname not like "Academic";
```

The results grid displays the following data:

ENAME	ESRNO	BDATE	ADDRESS	SEX	SALARY	MGRSRNO	DNO	dname
AJIT NAYAK	133100	1955-04-25	73 BOSTON	M	35000		1	ADMIN
BHAGWAT	215152	1971-03-23	55 FLORIDA	M	32802	216852	2	PROJECT
UMASHANKAR	216852	1967-07-17	26 FINE OAK	M	32770	133100	2	PROJECT
DEBASMITA	295485	1970-04-16	1 QUEENS LAND	F	20500	216852	2	PROJECT
JASWASI	215485	1979-08-12	17 BOSTON	M	20500	495823	4	RESEARCH
SATYA	495823	1966-07-17	26 FINE OAK	M	32770	133100	4	RESEARCH

The results grid also shows a message bar at the bottom with the following information:

#	Time	Action	Message
114	21:14:37	select ename, salary from employee where salary = (select max(salary) from employee) LIMIT ...	1 row(s) returned
115	21:15:37	select em.ename, em.address, em.dno, dp.dname from employee as em inner join department...	9 row(s) returned
116	21:16:38	select em.*, dp.dname from employee as em inner join department as dp on em.dno = dp.dnu...	6 row(s) returned

C) Display SATYAS' project location.

```
SELECT em.ename, pr.plocation FROM employee as em inner join project as pr on em.dno = pr.dnum WHERE em.ename = "Satya";
```

Insert Image -

The screenshot displays a database query editor interface. The top section shows a SQL query being executed:

```
-- C) Display SATYA'S project location.  
select em.ename, pr.plocation from employee as em inner join project as pr on em.dno = pr.dnum where em.ename = "Satya";
```

Below the query editor, the 'Result Grid' is visible, showing the results of the query:

ename	plocation
SATYA	KOREA

The bottom section of the interface shows the 'Output' pane, which displays a log of actions and their results:

#	Time	Action	Message
115	21:15:37	select em.ename, em.address, em.dno, dp.dname from employee as em inner join department...	9 row(s) returned
116	21:16:38	select em.*, dp.dname from employee as em inner join department as dp on em.dno = dp.dnu...	6 row(s) returned
117	21:17:32	select em.ename, pr.plocation from employee as em inner join project as pr on em.dno = pr.d...	1 row(s) returned

D) Find the total working hours of *each* female employee.

```
SELECT em.ename, sum(wr.hours) as Tot_Wor_Hours FROM employee as  
em inner join works_on as wr on em.esrno = wr.esrno where em.sex = "F"  
GROUP BY em.ename;
```

Insert Image -

The screenshot shows a database query tool interface. The top section displays a SQL query for finding the total working hours of female employees. The query is as follows:

```
-- D) Find the total working hours of each female employee.  
select em.ename, sum(wr.hours) as Tot_Wor_Hours from employee as em inner join works_on as wr on em.esrno = wr.esrno w
```

Below the query editor, the 'Result Grid' is visible, showing the results of the query. The grid has two columns: 'ename' and 'Tot_Wor_Hours'. The results are as follows:

ename	Tot_Wor_Hours
DEBASMITA	13.91
MEENAKSHI	8.32

At the bottom of the interface, the 'Output' section shows the execution log. It includes the following entries:

#	Time	Action	Message
118	21:18:29	select em.ename, sum(wr.hours) from employee as em inner join works_on as wr on em.esmo...	2 row(s) returned
119	21:19:15	select em.ename, sum(wr.hours) as Tot_Wor_Hours from employee as em inner join works_o...	2 row(s) returned
120	21:20:05	select em.ename, sum(wr.hours) as Tot_Wor_Hours from employee as em inner join works_o...	2 row(s) returned

E) Display the details of the people whose projects are located at SOUTH AFRICA.

```
SELECT em.*, pr.plocation FROM employee as em inner join project as pr on  
em.dno = pr.dnum WHERE pr.plocation = "South Africa";
```

Insert Image -

The screenshot shows a database query tool interface. At the top, there's a toolbar with various icons and a 'Limit to 1000 rows' dropdown. Below the toolbar, a SQL query is entered in a text area:

```
-- E) Display the details of the people whose projects are located at SOUTH AFRICA  
select em.*, pr.plocation from employee as em inner join project as pr on em.dno = pr.dnum where pr.plocation = "South Africa";
```

Below the query, a 'Result Grid' is displayed, showing the results of the query. The grid has columns: ENAME, ESRNO, BDATE, ADDRESS, SEX, SALARY, MGRSRNO, DNO, and plocation. The results are as follows:

ENAME	ESRNO	BDATE	ADDRESS	SEX	SALARY	MGRSRNO	DNO	plocation
AJIT BEHERA	315152	1971-07-09	10 KALINGA	M	32802	133100	3	SOUTH AFRICA
NIHAR NAYAK	334524	1966-12-17	73 DALLAS	M	29105	315152	3	SOUTH AFRICA
MEENAKSHI	334548	1979-04-25	73 BRIKLY	F	25125	315152	3	SOUTH AFRICA

Below the result grid, there's an 'Output' section with a table showing the execution of the query. The table has columns: #, Time, Action, and Message. The results are as follows:

#	Time	Action	Message
119	21:19:15	select em.ename, sum(wr.hours) as Tot_Wor_Hours from employee as em inner join works_o...	2 row(s) returned
120	21:20:05	select em.ename, sum(wr.hours) as Tot_Wor_Hours from employee as em inner join works_o...	2 row(s) returned
121	21:21:01	select em.*, pr.plocation from employee as em inner join project as pr on em.dno = pr.dnum w...	3 row(s) returned