**Exam Answers:**

CREATE DATABASE ORG123;

SHOW DATABASES;

USE ORG123;

CREATE TABLE Worker (

WORKER\_ID INT NOT NULL PRIMARY KEY AUTO\_INCREMENT,

FIRST\_NAME CHAR(25),

LAST\_NAME CHAR(25),

SALARY INT(15),

JOINING\_DATE DATETIME,

DEPARTMENT CHAR(25)

);

INSERT INTO Worker

(WORKER\_ID, FIRST\_NAME, LAST\_NAME, SALARY, JOINING\_DATE, DEPARTMENT) VALUES

(001, 'Monika', 'Arora', 100000, '14-02-20 09.00.00', 'HR'),

(002, 'Niharika', 'Verma', 80000, '14-06-11 09.00.00', 'Admin'),

(003, 'Vishal', 'Singhal', 300000, '14-02-20 09.00.00', 'HR'),

(004, 'Amitabh', 'Singh', 500000, '14-02-20 09.00.00', 'Admin'),

(005, 'Vivek', 'Bhati', 500000, '14-06-11 09.00.00', 'Admin'),

(006, 'Vipul', 'Diwan', 200000, '14-06-11 09.00.00', 'Account'),

(007, 'Satish', 'Kumar', 75000, '14-01-20 09.00.00', 'Account'),

(008, 'Geetika', 'Chauhan', 90000, '14-04-11 09.00.00', 'Admin');

CREATE TABLE Bonus (

WORKER\_REF\_ID INT,

BONUS\_AMOUNT INT(10),

BONUS\_DATE DATETIME,

FOREIGN KEY (WORKER\_REF\_ID)

REFERENCES Worker(WORKER\_ID)

ON DELETE CASCADE

);

INSERT INTO Bonus

(WORKER\_REF\_ID, BONUS\_AMOUNT, BONUS\_DATE) VALUES

(001, 5000, '16-02-20'),

(002, 3000, '16-06-11'),

(003, 4000, '16-02-20'),

(001, 4500, '16-02-20'),

(002, 3500, '16-06-11');

CREATE TABLE Title (

WORKER\_REF\_ID INT,

WORKER\_TITLE CHAR(25),

AFFECTED\_FROM DATETIME,

FOREIGN KEY (WORKER\_REF\_ID)

REFERENCES Worker(WORKER\_ID)

ON DELETE CASCADE

);

INSERT INTO Title

(WORKER\_REF\_ID, WORKER\_TITLE, AFFECTED\_FROM) VALUES

(001, 'Manager', '2016-02-20 00:00:00'),

(002, 'Executive', '2016-06-11 00:00:00'),

(008, 'Executive', '2016-06-11 00:00:00'),

(005, 'Manager', '2016-06-11 00:00:00'),

(004, 'Asst. Manager', '2016-06-11 00:00:00'),

(007, 'Executive', '2016-06-11 00:00:00'),

(006, 'Lead', '2016-06-11 00:00:00'),

(003, 'Lead', '2016-06-11 00:00:00');

show tables;

select \* from title;

select \* from worker;

select \* from Bonus;

desc title;

desc worker;

desc Bonus;

**Questions and Answers**

# 1. Write an SQL query to fetch unique values of DEPARTMENT from Worker table.

select distinct department from worker;

# 2. Write an SQL query to print all Worker details from the Worker table order by FIRST\_NAME Ascending and DEPARTMENT Descending

select \* from worker order by department desc,first\_name asc;

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# 3. Write an SQL query to print details of the Workers whose FIRST\_NAME contains ‘a’

select \* from worker where first\_name like '%a%';

# 4. Write an SQL query to print details of the Workers whose FIRST\_NAME ends with ‘h’ and contains six alphabets

select \* from worker where first\_name like '%h' and length(first\_name)=6;

# 5. Write an SQL query to print details of the Workers whose SALARY lies between 100000 and 500000

select \* from worker where salary between 100000 and 500000;

# 6. Write an SQL query to print details of the Workers who have joined in Feb’2014

select \* from worker where joining\_date like '2014-02-%';

# 7. Write an SQL query to fetch the count of employees working in the department Admin

select count(\*) from worker where department='Admin';

# 8. Write an SQL query to fetch worker names with salaries >= 50000 and <= 100000.

select \* from worker where salary>=50000 and salary<=100000;

# 9. Write an SQL query to fetch the no. of workers for each department in the descending order

select department,count(worker\_id) as count from worker group by department order by count desc;

# 10. Write an SQL query to print details of the Workers who are also Managers

select \* from worker where worker\_id in (select worker\_ref\_id from title where worker\_title='Manager');

# 11. Write an SQL query to determine the 2nd lowest salary without using TOP or limit method.

select max(salary) from worker where salary !=(select max(salary) from worker);

# 12. Write an SQL query to fetch the list of employees with the same salary

select w1.first\_name from worker w1 join worker w2 where w1.salary=w2.salary and w1.worker\_id!=w2.worker\_id;

# 13. Write an SQL query to show the second highest salary from a table

select distinct salary as SecondHighest\_salary from worker order by salary desc limit 1 offset 1;

# 14. Write an SQL query to show one row twice in results from a table.

select \* from worker w1

union all

select \* from worker w2 order by worker\_id;

# 15. Write an SQL query to fetch the first 50% records from a table.

select \* from worker where worker\_id<=(select count(\*) from worker)/2;

# 16. Write an SQL query to fetch the departments that have less than three people in it.

select department from worker group by department having count(department)<3;

# 17. Write an SQL query to show all departments along with the number of people in there.

select department,count(worker\_id) from worker group by department;

# 18. Write an SQL query to fetch the last five records from a table in asc.

select \* from worker order by worker\_id desc limit 5;

# 19. Write an SQL query to print the name of employees having the highest salary in each department

select first\_name, department from worker w where salary=(select max(salary) from worker where department = w.department);

# 20. Write an SQL query to fetch three max salaries from a table

select distinct salary from worker order by salary desc limit 3;

# 21. Write an SQL query to print the name of employees having the lowest salary in accunt and admin department

select first\_name from worker where department in ('account','admin') and salary=(select min(salary) from worker where department in ('account','admin'));