Interview Questions on SQL are based on following two tables, Employee Table and Employee Incentive Table.

**Table Name : Employee EMP\_ID As PRIMARY KEY**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| EMPLOYEE\_ID | FIRST\_NAME | LAST\_NAME | SALARY | JOINING\_DATE | DEPARTMENT | | |
| 1 | Venkatesh | S | 100000 | 08/28/2015 | | BANKING | | |
| 2 | Ragavi | P | 75000 | 08/28/2015 | | | BUSINESS | |
| 3 | Gopinath | C | 50000 | 03/02/2016 | | | PHARMA | |
| 4 | Dinesh | G | 50000 | 03/02/2016 | | | INSURANCE | |
| 5 | Saibabu | E | 40000 | 07/08/2017 | | | SOFTWARE | |
| 6 | Hasan | S | 29000 | 07/08/2017 | | | MANUFACTURING | |
| 7 | Divya | P | 33000 | 07/08/2017 | | | HEALTHCARE | |
| 8 | Aravindan | R | 40000 | 07/08/2017 | | | HEALTHCARE | |
| 9 | Sathish | MD | 45000 | 03/02/2016 | | | AUTOMOBILE | |
| 10 | Prasanth | PKP | 34000 | 03/02/2016 | | | INSURANCE | |
| 11 | Vijay | R | 25684 | 03/02/2016 | | | BUSINESS | |
| 12 | Sivakumar | K | 54789 | 03/02/2016 | | | SOFTWARE | |

**Table Name : Incentives**

|  |  |  |
| --- | --- | --- |
| **EMPLOYEE\_REF\_ID** | **INCENTIVE\_DATE** | **INCENTIVE\_AMOUNT** |
| 1 | 01-FEB-16 | 5000 |
| 2 | 01-FEB-16 | 3000 |
| 3 | 01-FEB-17 | 4000 |
| 1 | 01-JAN-17 | 4500 |
| 2 | 01-JAN-17 | 3500 |

**SQL Queries Interview Questions and Answers on "SQL Select" - Examples**

**1.Get all employee details from the employee table**

**Select\*from emptable;**

**2. Get First\_Name,Last\_Name from employee table**

**select FIRST\_NAME,LAST\_NAME from emptable;**

3. **Get First\_Name from employee table using alias name “Employee Name”**

select FIRST\_NAME as Employee\_Name

4. **Get First\_Name from employee table in upper case**

**select UPPER(FIRST\_NAME) from emptable1;**

5. **Get First\_Name from employee table in lower case**

**Select LOWER(LOWER\_NAME)from emptable1;**

6. **Get unique DEPARTMENT from employee table**

select DISTINCT(DEPARTMENT) from emptable1;

7. **Select first 3 characters of FIRST\_NAME from EMPLOYEE**

**select SUBSTRING(FIRST\_NAME,1,3) from emptable1;**

8. **Get position of 'a' in name 'ragavi' from employee table**

**select position('a' in "ragavi");**

9. **Get FIRST\_NAME from employee table after removing white spaces from right side**

**select RTRIM(FIRST\_NAME) as FIRST\_NAME from Emptable1;**

10. **Get FIRST\_NAME from employee table after removing white spaces from left side**

Select LTRIM(FIRST\_NAME) as FIRST\_NAME from Emptable1;

11. **Get length of FIRST\_NAME from employee table**

**select length(FIRST\_NAME) from emptable1;**

12. **Get First\_Name from employee table after replacing 'a' with '$'**

select REPLACE (FIRST\_NAME 'a', '$') as FIRST\_NAME FROM Emptable1;

13. **Get First\_Name and Last\_Name as single column from employee table separated by a '\_'**

select CONCAT(FIRST\_NAME, '\_', LAST\_NAME) as Full\_Name FROM Emptable1;

14. **Get FIRST\_NAME ,Joining year,Joining Month and Joining Date from employee table**

select FIRST\_NAME, YEAR(JOINING\_DATE) as JOINING\_YEAR, MONTH(JOINING\_DATE) as JOINING\_MONTH, DAY(JOINING\_DATE) AS JOINING\_DATE from Emptable1;

**Database SQL Queries Interview Questions and answers on "SQL Order By"**

**15. Get all employee details from the employee table order by First\_Name Ascendiing**

**Select\*from emptable1 order by FIRST\_NAME asc;**

**16. Get all employee details from the employee table order by First\_Name descending**

select \* from emptable1 order by FIRST\_NAME desc;

**17. Get all employee details from the employee table order by First\_Name Ascending and Salary descending**

select \*from Emptable1 order by FIRST\_NAME asc,salary desc;

**SQL Queries Interview Questions and Answers on "SQL Where Condition" - Examples**

**18. Get employee details from employee table whose employee name is “Dinesh”**

select \*from Emptable1 where FIRST\_NAME='dinesh';

**19. Get employee details from employee table whose employee name are “Dinesh” and “Roy”**

Select \*from Emptable1 where FIRST\_NAME in('dinesh','roy');

**20. Get employee details from employee table whose employee name are not “Dinesh” and “Roy”**

Select \*from Emptable1 where FIRST\_NAME not in ('dinesh','roy');

**SQL Queries Interview Questions and Answers on "SQL Wild Card Search" - Examples**

**21. Get employee details from employee table whose first name starts with 's'**

select \*from emptable where FIRST\_NAME like "%s";

**22. Get employee details from employee table whose first name contains 'v'**

**Select\*from emptable where FIRST\_NAME like”%v%”;**

**23. Get employee details from employee table whose first name ends with 'n'**

**Select\*from emptable where FIRST\_NAME like”%n”;**

**SQL Queries Interview Questions and Answers on "SQL Pattern Matching" - Examples**

**24. Get employee details from employee table whose first name ends with 'n' and name contains 4 letters**

select \* from Emptable1 where FIRST\_NAME like '\_n' and length(FIRST\_NAME)=4;

**25. Get employee details from employee table whose first name starts with 'J' and name contains 4 letters**

select \*from Emptable1 where FIRST\_NAME like 'j\_\_\_' and length(FIRST\_NAME)=4;

**26. Get employee details from employee table who’s Salary greater than 60000**

select \*from Emptable1 where salary>60000;

**27. Get employee details from employee table who’s Salary less than 80000**

select\*from emptable1 where salary<80000;

**28. Get employee details from employee table who’s Salary between 50000 and 80000**

select \*from Emptable1 where salary between 50000 and 80000;

**29. Get employee details from employee table whose name is venkatesh and ragavi**

select \*from emptable1 where FIRST\_NAME='venkatesh'or FIRST\_NAME='ragavi';

**SQL Queries Interview Questions and Answers on "SQL DATE Functions" - Examples**

**30. Get employee details from employee table whose joining year is “2015”**

**Select \* from emptable where extract(year from JOINING\_DATE)=2015**

**31. Get employee details from employee table whose joining month is “January”**

**Select\*from emptable where extract(month from JOINING\_DATE)=1;**

**32. Get employee details from employee table who joined before January 1st 2017**

select \*from Emptable1 where JOINING\_DATE<'2017-01-01';

**33. Get employee details from employee table who joined after January 31st 2016**

select \*from emptable1 where JOINING\_DATE>'2016-01-31';

**35. Get Joining Date and Time from employee table**

**36. Get Joining Date,Time including milliseconds from employee table**

**37. Get difference between JOINING\_DATE and INCENTIVE\_DATE from employee and incentives table**

**select e.EMPLOYEE\_ID, DATEDIFF(i.INCENTIVE\_DATE, e.JOINING\_DATE) as date\_difference**

**from Employee e join INCENTIVES on e.EMPLOYEE\_ID =i.EMPLOYEE\_REF\_ID;**

**38. Get database date**

select sysdate() from dual;

**SQL Queries Interview Questions and Answers on "SQL Escape Characters" - Examples**

**39. Get names of employees from employee table who has '%' in Last\_Name. Tip : Escape character for special characters in a query.**

select FIRST\_NAME, LAST\_NAME from emptable1 where LAST\_NAME like '%\%' escape'/';

**40. Get Last Name from employee table after replacing special character with white space**

select REPLACE(LAST\_NAME, '%', ' ') as modified\_last\_name from emptable1;

**SQL Queries Interview Questions and Answers on "SQL Group By Functions" - Examples**

**41. Get department,total salary with respect to a department from employee table**

**select DEPARTMENT, SUM(SALARY) as total\_salary from emptable1 group by DEPARTMENT;**

**42. Get department,total salary with respect to a department from employee table order by total salary descending**

select DEPARTMENT, SUM(SALARY) AS total\_salary from emptable1 group by DEPARTMENT order by total\_salary desc;

**SQL Queries Interview Questions and Answers on "SQL Mathematical Operations using Group By" - Examples**

**43. Get department,no of employees in a department,total salary with respect to a department from employee table order by total salary descending**

select DEPARTMENT, COUNT(\*) AS num\_employees, SUM(SALARY) AS total\_salary from emptable1 group by DEPARTMENT order by total\_salary desc;

**44. Get department wise average salary from employee table order by salary ascending**

**Select avg (salary)from emptable1 order by salary asc;**

**45. Get department wise maximum salary from employee table order by salary ascending**

**select max(salary)from emptable1 order by salary asc;**

**46. Get department wise minimum salary from employee table order by salary ascending**

**select min(salary)from emptable1 order by salary asc;**

**47. Select no of employees joined with respect to year and month from employee table**

**SELECT TO\_CHAR (JOINING\_DATE,'YYYY') JOIN\_YEAR, FROM EMPTABLE1 GROUP BY TO\_CHAR (JOINING\_DATE,'YYYY'),TO\_CHAR(JOINING\_DATE,'MM');**

**48. Select department,total salary with respect to a department from employee table where total salary greater than 800000 order by Total\_Salary descending**

select DEPARTMENT,sum(SALARY) TOATL\_SALARY from emptable1 group by DEPARTMENT having sum(salary)>800000 order by TOTAL\_SALARY DESC;

**SQL Queries Interview Questions and Answers on "SQL Joins" - Examples**

**49. Select first\_name, incentive amount from employee and incentives table for those employees who have incentives**

**SELECT emptable1 FIRST\_NAME incentive1 INCENTIVE\_AMOUNT from emptable1 INNER JOIN incentive1 ON emptable1 EMPLOYEE\_ID incentive1 EMPLOYEE\_REF\_ID;**

**50. Select first\_name, incentive amount from employee and incentives table for those employees who have incentives and incentive amount greater than 3000**

**SELECT emptable1 FIRST\_NAME incentive1 INCENTIVE\_AMOUNT from emptable1 INNER JOIN incentive1 ON emptable1 EMPLOYEE\_ID=incentive EMPLOYEE\_REF\_ID and INCENTIVE1\_AMOUNT>3000;**

**51. Select first\_name, incentive amount from employee and incentives table for all employes even if they didn't get incentives**

**Select emptable1FIRST\_NAME incentive INCENTIVE\_AMOUNT from emptable1 LEFT\_JOIN incentive1 ON emptable1 EMPLOYEE\_ID=incentive1 EMPLOYEE\_REF\_ID;**

**52. Select first\_name, incentive amount from employee and incentives table for all employees even if they didn't get incentives and set incentive amount as 0 for those employees who didn't get incentives.**

select FIRST\_NAME ,incentive1(INCENTIVE\_AMOUNT) from emptable1 left\_join incentive1 on emptable1 EMPLOYEE\_ID=incentive1.EMP\_REF\_ID;

**53. Select first\_name, incentive amount from employee and incentives table for all employees who got incentives using left join**

select FIRST\_NAME ,incentive1(INCENTIVE\_AMOUNT) from emptable1 right\_join incentive1 on emptable1 EMPLOYEE\_ID=incentive1.EMP\_REF\_ID;

**54. Select max incentive with respect to employee from employee and incentives table using sub query**

select DEPARTMENT,(select NVL(max(INCENTIVE\_AMOUNT),0 from INCENTIVE where EmPLOYEE\_REF\_ID from Emptable1 )

**Advanced SQL Queries Interview Questions and Answers on "Top N Salary" - Examples**

**55. Select TOP 2 salary from employee table**

**Select \*from(select \*from employee order by salary desc) where rownum;**

**56. Select TOP N salary from employee table**

**Select MIN(SALARY from(select\*from(select\*from employee order by SALARY desc) where rownum;**

**57. Select 2nd Highest salary from employee table**

SELECT MIN(SALARY) FROM (SELECT \* FROM (SELECT \* FROM EMPLOYEE ORDER BY SALARY DESC) WHERE ROWNUM <3);

**58. Select Nth Highest salary from employee table**

SELECT MIN(SALARY) FROM (SELECT \* FROM (SELECT \* FROM EMPLOYEE ORDER BY SALARY DESC) WHERE ROWNUM

**SQL Queries Interview Questions and Answers on "SQL Union" - Examples**

**59. Select First\_Name,LAST\_NAME from employee table as separate rows**

**SELECT FIRST\_NAME from emptable1 union LAST\_NAME from emptable1;**

**60. What is the difference between UNION and UNION ALL ?**

**UNION:**

**Union is a user defined method.both the table.**

**UNION ALL:**

**Return all the table from both records.**

**"Advanced SQL Queries Interview Questions and Answers"**

**61. Select employee details from employee table if data exists in incentive table ?**

**SELECT \* FROM Emptable1 WHERE EXISTS (SELECT \* FROM INCENTIVES1);**

**62. How to fetch data that are common in two query results ?**

select \* from Emptable1 where EMPLOYEE\_ID INTERSECT select \* from EMPLOYEE where EMPLOYEE\_ID < 4Explanation;

**63. Get Employee ID's of those employees who didn't receive incentives without using sub query ?**

**64. Select 20 % of salary from venkat , 10% of Salary for gopi and for other 15 % of salary from employee table**

**select sysdate from dual;SELECT CASE WHEN employee\_name = 'venkat' THEN salary \* 0.2 WHEN employee\_name = 'gopi' THEN salary \* 0.1 ELSE salary \* 0.15 END AS selected\_percentage FROM emp\_table1;**

**65. Select Banking as 'Bank Dept', Insurance as 'Insurance Dept' and Services as 'Pharma Dept' from employee table**

SELECT CASE WHEN department = 'Banking' THEN 'Bank Dept' WHEN department = 'Insurance' THEN 'Insurance Dept' WHEN department = 'Services' THEN 'Pharma Dept' END AS department\_alia FROM emp\_table1;

**66. Delete employee data from employee table who got incentives in incentive table**

DELETE FROM employee\_table WHERE employee\_id IN (SELECT employee\_id FROM incentive\_table);

**67. Insert into employee table Last Name with " ' " (Single Quote - Special Character)**

**68. Select Last Name from employee table which contain only numbers**

**69. Write a query to rank employees based on their incentives for a month**

**70**. **Update incentive table where employee name is 'Dinesh'**