**AJITHKUMAR R CSE-‘B’**

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**

**ANS:** select \*from employee; #q1

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

**ANS:** select FIRST\_NAME,LAST\_NAME from Employee; #q2

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

**ANS:** select FIRST\_NAME as EMPLOYEE\_NAME FROM Employee; #q3

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

**ANS:** select upper(FIRST\_NAME)as FIRST\_NAME from Employee; #q4

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

**ANS:** select lower(FIRST\_NAME)as FIRST\_NAME from Employee; #q5

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

**ANS:** select distinct DEPARTMENT from employee; #q6

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

**ANS:** select substring(FIRST\_NAME,1,3)from employee; #q7

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

**ANS: select position("a" in "ragavi") as position; #q8**

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

**ANS: select rtrim(first\_name) from employee; #q9**

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

**ANS: select ltrim(first\_name) from employee; #q10**

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

**ANS: select length(first\_name) from employee; #q11**

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

**ANS: select replace(first\_name,"a" ,"$")from employee; #q12**

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

**ANS: select concat(first\_name,"\_",last\_name)from employee; #q13**

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

**ANS: select first\_name,year(joining\_date),month(joining\_date),day(joining\_date) from employee; #q14**

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

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

**ANS: select \*from employee order by first\_name ASC; #q15**

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

**ANS: select \*from employee order by first\_name DESC; #q16**

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

**ANS: select \*from employee order by first\_name ASC,salary desc; #q17**

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

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

**ANS: select \* from employee where first\_name = "dinesh"; #q18**

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

**ANS:** select \* from employee where first\_name = "dinesh" or "roy"; #q19

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

**ANS: select \* from employee where first\_name <> "dinesh" or "roy"; #q20**

**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'**

**ANS: select \* from employee where first\_name like 's%'; #q21**

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

**ANS: select \* from employee where first\_name like '%v%'; #q22**

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

**ANS: select \* from employee where first\_name like '%n'; #q23**

**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**

**ANS: select \* from employee where first\_name like '%n' and length(first\_name)=4; #q24**

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

**ANS: select \* from employee where first\_name like 'j%' and length(first\_name)=4; #q25**

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

**ANS: select \* from employee where salary>60000; #q26**

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

**ANS: select \* from employee where salary<80000; #q27**

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

**ANS: select \* from employee where salary>50000 and SALARY<80000; #q28**

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

**ANS: select \* from employee where FIRST\_NAME= "Venkatesh" or first\_name="ragavi"; #29**

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

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

**ANS: select \* from employee where extract(year from joining\_date)=2015; #30**

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

**ANS: select \* from employee where extract(month from joining\_date)=01; #31**

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

**ANS: select count(joining\_date),joining\_date from employee group by JOINING\_DATE having JOINING\_DATE=date(20170708);**

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

**ANS:** **select employee\_Id,concat(first\_name," ",last\_name)as employee\_Name from employee where joining\_date="2017-07-08" order by EMPLOYEE\_ID DESC;**

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

**ANS: SELECT DATE\_FORMAT(joining\_date,"%d %r")from employee;**

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

**ANS: SELECT DATE\_FORMAT(joining\_date,"%d %r %f")from employee;**

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

**ANS: select datediff(incentives.Incentive\_Date,employee.joining\_date)from employee left outer join incentives on employee.employee\_ID=incentives.employee\_ref\_id;**

**38. Get database date**

**ANS:** No Answer..

**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.**

**ANS:** **select concat(first\_name+" "+last\_name)as employee\_Name from employee where last\_name = "%";**

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

**ANS: Select REPLACE(LAST\_NAME,'%',' ') from employee;**

**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.**

**ANS: Select DEPARTMENT,sum(SALARY) as Total\_Salary from employee group by department;**

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

**ANS: Select DEPARTMENT,sum(SALARY) as Total\_Salary from employee 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**

**ANS: Select DEPARTMENT,count(DEPARTMENT),sum(SALARY) Total\_Salary from employee group by DEPARTMENT order by Total\_Salary desc;**

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

**ANS: select DEPARTMENT, floor(avg(SALARY))salary from employee group by DEPARTMENT order by SALARY;**

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

**ANS: select DEPARTMENT, floor(max(SALARY))salary from employee group by DEPARTMENT order by SALARY;**

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

**ANS: select DEPARTMENT, floor(min(SALARY))salary from employee group by DEPARTMENT order by SALARY;**

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

**ANS: select count(employee\_Id) from employee group by year(Joining\_Date),month(Joining\_Date);**

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

**ANS: Select DEPARTMENT,sum(SALARY) Total\_Salary from employee group by DEPARTMENT having Salary > 80000 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**

**ANS: Select FIRST\_NAME,INCENTIVE\_AMOUNT from employee inner join incentives on employee.EMPLOYEE\_ID = incentives.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**

**ANS: Select FIRST\_NAME,INCENTIVE\_AMOUNT from employee inner join incentives on employee.EMPLOYEE\_ID = incentives.EMPLOYEE\_REF\_ID and INCENTIVE\_AMOUNT > 3000;**

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

**ANS: Select FIRST\_NAME,INCENTIVE\_AMOUNT from employee left join incentives on employee.EMPLOYEE\_ID = incentives.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.**

**ANS:**

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

**ANS:**

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

**ANS:**

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

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

**ANS:**

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

**ANS:**

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

**ANS:**

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

**ANS:**

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

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

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

**ANS:**

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

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

**ANS:**

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

**ANS:**

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

**ANS:**

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

**ANS:**

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

**ANS:**

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

**ANS:**

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

**ANS:**

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

**ANS:**

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

**ANS:**

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

**ANS:**