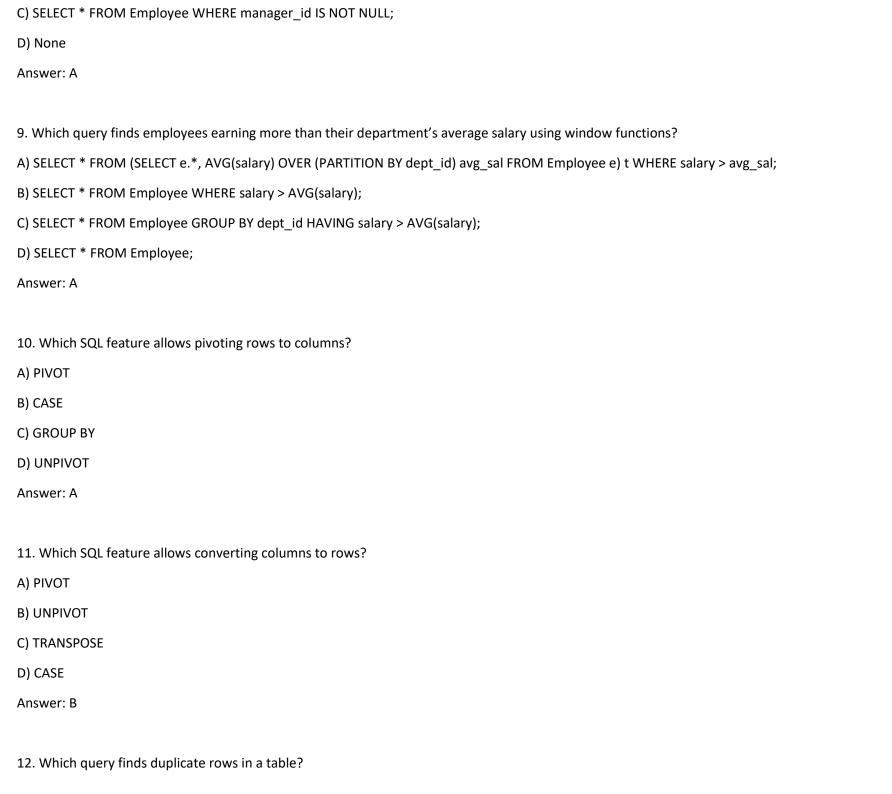
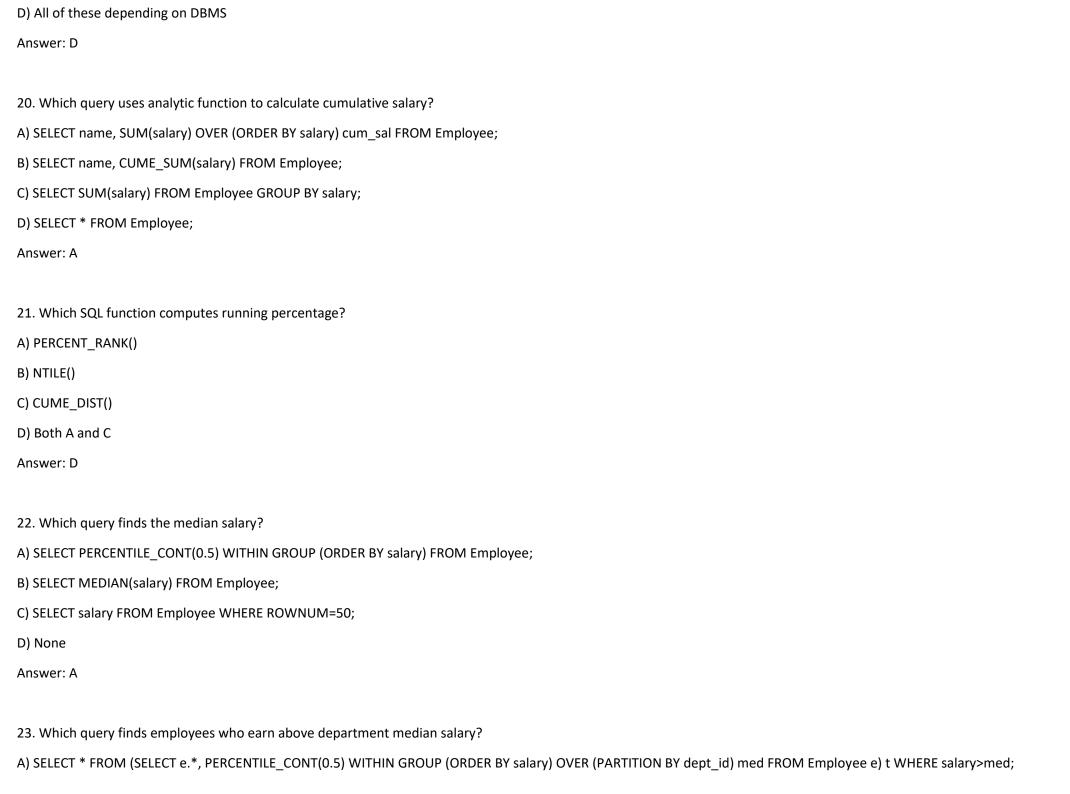
1. Which query finds the nth highest salary in SQL (portable way)?
A) SELECT salary FROM Employee ORDER BY salary DESC LIMIT n-1,1;
B) SELECT salary FROM (SELECT salary, DENSE_RANK() OVER (ORDER BY salary DESC) r FROM Employee) t WHERE r=n;
C) SELECT TOP n salary FROM Employee ORDER BY salary DESC;
D) SELECT salary FROM Employee;
Answer: B
2. Which SQL function ranks rows without gaps in ranking sequence?
A) RANK()
B) DENSE_RANK()
C) ROW_NUMBER()
D) NTILE()
Answer: B
3. Which SQL function ranks rows with possible gaps?
A) RANK()
B) DENSE_RANK()
C) ROW_NUMBER()
D) NTILE()
Answer: A
4. Which SQL function assigns unique number to each row in order?
A) RANK()
B) DENSE_RANK()
C) ROW_NUMBER()
D) NTILE()

Answer: C
5. Which SQL function divides rows into n buckets?
A) RANK()
B) DENSE_RANK()
C) ROW_NUMBER()
D) NTILE()
Answer: D
6. Which query finds employees with salary greater than average of their department?
A) SELECT * FROM Employee WHERE salary > AVG(salary) GROUP BY dept_id;
B) SELECT * FROM Employee e WHERE salary > (SELECT AVG(salary) FROM Employee WHERE dept_id=e.dept_id);
C) SELECT * FROM Employee WHERE salary > ALL(AVG(salary));
D) SELECT * FROM Employee WHERE salary > (AVG(salary));
Answer: B
7. Which SQL feature allows recursive queries?
A) WITH RECURSIVE
B) CONNECT BY
C) CTE
D) All of these depending on DBMS
Answer: D
8. Which query finds all managers in a hierarchy recursively?
A) WITH RECURSIVE cte AS (SELECT id, manager_id FROM Employee UNION ALL SELECT e.id, e.manager_id FROM Employee e JOIN cte c ON e.id=c.manager_id) SELECT * FROM cte.
B) SFI FCT manager FROM Employee:



A) SELECT col, COUNT(*) FROM Table GROUP BY col HAVING COUNT(*)>1;
B) SELECT DISTINCT * FROM Table;
C) SELECT * FROM Table WHERE col IS DUPLICATE;
D) SELECT * FROM Table;
Answer: A
13. Which query deletes duplicate rows keeping only one?
A) DELETE FROM Employee WHERE id NOT IN (SELECT MIN(id) FROM Employee GROUP BY salary);
B) DELETE DUPLICATE FROM Employee;
C) TRUNCATE Employee;
D) None
Answer: A
14. Which query finds employees who earn more than at least one employee in another department?
A) SELECT * FROM Employee e1 WHERE salary > ANY(SELECT salary FROM Employee e2 WHERE e1.dept_id<>e2.dept_id);
B) SELECT * FROM Employee WHERE salary > MIN(salary);
C) SELECT * FROM Employee WHERE salary > SOME(salary);
D) SELECT * FROM Employee;
Answer: A
15. Which query finds employees who earn more than every employee in another department?
A) SELECT * FROM Employee e1 WHERE salary > ALL(SELECT salary FROM Employee e2 WHERE e1.dept_id<>e2.dept_id);
B) SELECT * FROM Employee WHERE salary > MAX(salary);
C) SELECT * FROM Employee WHERE salary > ANY(salary);
D) None
Answer: A

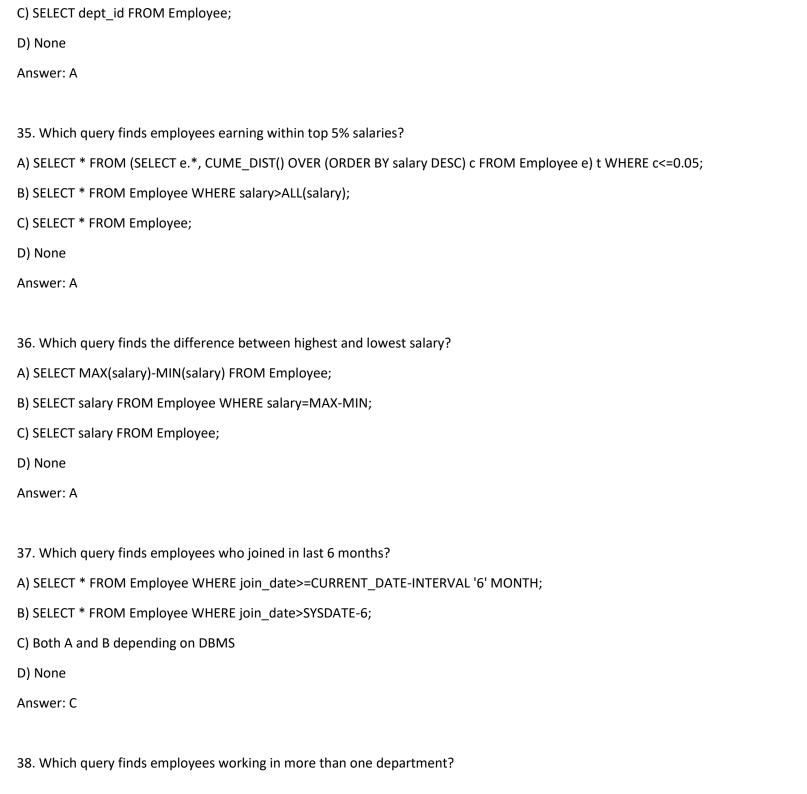
16. Which query finds the employee(s) with maximum salary using correlated subquery?
A) SELECT * FROM Employee e WHERE salary=(SELECT MAX(salary) FROM Employee);
B) SELECT * FROM Employee e WHERE NOT EXISTS(SELECT 1 FROM Employee e2 WHERE e2.salary>e.salary);
C) SELECT TOP 1 * FROM Employee ORDER BY salary DESC;
D) All of these
Answer: D
17. Which SQL clause improves query readability for nested subqueries?
A) WITH (CTE)
B) GROUP BY
C) HAVING
D) WINDOW
Answer: A
18. Which query lists departments with more than average number of employees?
A) SELECT dept_id FROM Employee GROUP BY dept_id HAVING COUNT(*)>(SELECT AVG(cnt) FROM (SELECT COUNT(*) cnt FROM Employee GROUP BY dept_id) t);
B) SELECT dept_id FROM Employee WHERE COUNT(*)>AVG(COUNT(*));
C) SELECT dept_id FROM Employee;
D) None
Answer: A
19. Which query returns the top 10% of salaries?
A) SELECT salary FROM Employee ORDER BY salary DESC FETCH FIRST 10 PERCENT ROWS ONLY;
B) SELECT TOP 10 PERCENT salary FROM Employee ORDER BY salary DESC;
C) SELECT * FROM (SELECT salary, NTILE(10) OVER (ORDER BY salary DESC) t FROM Employee) WHERE t=1;



B) SELECT * FROM Employee WHERE salary>MEDIAN(salary);
C) SELECT * FROM Employee;
D) None
Answer: A
24. Which SQL feature helps detect performance issues?
A) EXPLAIN PLAN
B) ANALYZE
C) EXPLAIN QUERY
D) DEBUG
Answer: A
25. Which join may generate same output as CROSS JOIN in wrong condition?
A) INNER JOIN without ON
B) LEFT JOIN
C) RIGHT JOIN
D) FULL JOIN
Answer: A
26. Which query finds departments having employees with all possible job roles?
A) SELECT dept_id FROM Employee GROUP BY dept_id HAVING COUNT(DISTINCT job)=(SELECT COUNT(DISTINCT job) FROM Employee);
B) SELECT dept_id FROM Employee WHERE job=ALL(job);
C) SELECT * FROM Employee;
D) None
Answer: A

27. Which query finds employees whose salary is greater than their manager?
A) SELECT e.* FROM Employee e JOIN Employee m ON e.manager_id=m.id WHERE e.salary>m.salary;
B) SELECT * FROM Employee WHERE salary>manager.salary;
C) SELECT * FROM Employee WHERE salary>salary;
D) None
Answer: A
28. Which query finds employees who manage more than 5 employees?
A) SELECT manager_id FROM Employee GROUP BY manager_id HAVING COUNT(*)>5;
3) SELECT * FROM Employee WHERE manager_id>5;
C) SELECT manager_id FROM Employee;
D) None
Answer: A
29. Which query finds employee(s) with maximum salary in each department?
A) SELECT * FROM Employee e WHERE salary=(SELECT MAX(salary) FROM Employee e2 WHERE e2.dept_id=e.dept_id);
B) SELECT dept_id, MAX(salary) FROM Employee GROUP BY dept_id;
C) SELECT * FROM Employee;
D) Both A and B
Answer: D
30. Which query finds departments where every employee earns above company average?
A) SELECT dept_id FROM Employee e GROUP BY dept_id HAVING MIN(salary)>(SELECT AVG(salary) FROM Employee);
B) SELECT dept_id FROM Employee WHERE salary>AVG(salary);
C) SELECT * FROM Employee;
D) None

Answer: A
31. Which query finds employees whose salary is same as their department's maximum?
A) SELECT * FROM Employee e WHERE salary=(SELECT MAX(salary) FROM Employee e2 WHERE e2.dept_id=e.dept_id);
B) SELECT * FROM Employee WHERE salary=MAX(salary);
C) SELECT * FROM Employee WHERE salary=ANY(salary);
D) None
Answer: A
32. Which query finds employees who joined earliest in each department?
A) SELECT * FROM Employee e WHERE join_date=(SELECT MIN(join_date) FROM Employee e2 WHERE e2.dept_id=e.dept_id);
B) SELECT dept_id, MIN(join_date) FROM Employee GROUP BY dept_id;
C) SELECT * FROM Employee;
D) Both A and B
Answer: D
33. Which query finds top 3 salaries in each department?
A) SELECT * FROM (SELECT e.*, DENSE_RANK() OVER (PARTITION BY dept_id ORDER BY salary DESC) r FROM Employee e) t WHERE r<=3;
B) SELECT TOP 3 salary FROM Employee GROUP BY dept_id;
C) SELECT * FROM Employee WHERE salary=3;
D) None
Answer: A
34. Which query finds departments where max salary is greater than average company salary?
A) SELECT dept_id FROM Employee GROUP BY dept_id HAVING MAX(salary)>(SELECT AVG(salary) FROM Employee);
B) SELECT dept_id FROM Employee WHERE MAX(salary)>AVG(salary);



A) SELECT id FROM Employee GROUP BY id HAVING COUNT(DISTINCT dept_id)>1;
B) SELECT * FROM Employee WHERE dept_id>1;
C) SELECT * FROM Employee;
D) None
Answer: A
39. Which query finds employees with salary equal to department average?
A) SELECT * FROM Employee e WHERE salary=(SELECT AVG(salary) FROM Employee e2 WHERE e2.dept_id=e.dept_id);
B) SELECT * FROM Employee WHERE salary=AVG(salary);
C) SELECT * FROM Employee;
D) None
Answer: A
40. Which query finds employees who joined before their manager?
A) SELECT e.* FROM Employee e JOIN Employee m ON e.manager_id=m.id WHERE e.join_date <m.join_date;< td=""></m.join_date;<>
B) SELECT * FROM Employee WHERE join_date <manager;< td=""></manager;<>
C) SELECT * FROM Employee;
D) None
Answer: A
41. Which SQL feature is used to create materialized query results?
A) MATERIALIZED VIEW
B) PERSISTENT QUERY
C) STORED SELECT
D) CACHE
Answer: A

42. Which query finds departments where every employee earns more than 50,000?
A) SELECT dept_id FROM Employee GROUP BY dept_id HAVING MIN(salary)>50000;
B) SELECT dept_id FROM Employee WHERE salary>50000;
C) SELECT * FROM Employee;
D) None
Answer: A
43. Which query finds employees who do not manage anyone?
A) SELECT * FROM Employee e WHERE NOT EXISTS(SELECT 1 FROM Employee m WHERE m.manager_id=e.id);
B) SELECT * FROM Employee WHERE manager=NULL;
C) SELECT * FROM Employee;
D) None
Answer: A
44. Which query finds departments with maximum average salary?
A) SELECT dept_id FROM Employee GROUP BY dept_id ORDER BY AVG(salary) DESC FETCH FIRST 1 ROW ONLY;
B) SELECT dept_id FROM Employee WHERE salary>AVG(salary);
C) SELECT * FROM Employee;
D) None
Answer: A
45. Which query finds the department(s) with highest employee count?
A) SELECT dept_id FROM Employee GROUP BY dept_id HAVING COUNT(*)=(SELECT MAX(c) FROM (SELECT COUNT(*) c FROM Employee GROUP BY dept_id) t);
B) SELECT dept_id FROM Employee WHERE COUNT(*)=MAX;
C) SELECT * FROM Employee;

