use rainfall

SELECT \*

from rainfall\_data;

select count(\*) from rainfall\_data;

## 1. Total annual rainfall per state (descending order)

SELECT STATE\_UT\_NAME, ROUND(SUM(ANNUAL),2) AS TOTAL\_ANNUAL\_RAINFALL

FROM RAINFALL\_DATA

GROUP BY STATE\_UT\_NAME

ORDER BY TOTAL\_ANNUAL\_RAINFALL DESC;

## 2. Top 5 rainiest districts in India (based on ANNUAL):

SELECT DISTRICT, MAX(ANNUAL)

FROM RAINFALL\_DATA

GROUP BY DISTRICT

ORDER BY MAX(ANNUAL) DESC

LIMIT 5;

## 3. Average rainfall in each season by state:

SELECT STATE\_UT\_NAME, AVG(Jan-Feb), Avg(Mar-May), AVG(Jun-Sep),AVG(Oct-'Dec')

from RAINFALL\_DATA

group by STATE\_UT\_NAME

## Find districts with more than 3000 mm annual rainfall:

SELECT DISTRICT,ANNUAL

FROM RAINFALL\_DATA

WHERE ANNUAL >3000

ORDER BY ANNUAL ;

## 5. State-wise district count:alter

SELECT STATE\_UT\_NAME,COUNT(DISTRICT) AS DISTRICT\_COUNT

FROM RAINFALL\_DATA

GROUP BY STATE\_UT\_NAME

ORDER BY DISTRICT\_COUNT DESC;

## 6. State with the highest average annual rainfall:

SELECT STATE\_UT\_NAME,ROUND(AVG(ANNUAL),2) AS HIGHEST\_AVERAGE\_RAINFALL

FROM RAINFALL\_DATA

GROUP BY STATE\_UT\_NAME

ORDER BY HIGHEST\_AVERAGE\_RAINFALL DESC;

## 7. Districts where July rainfall exceeds 600 mm:

SELECT DISTRICT,JUL

FROM RAINFALL\_DATA

WHERE JUL > 600;

## 8 Compare June vs July rainfall for each district:

SELECT DISTRICT,JUN,JUL,ROUND( (JUL - JUN),4) AS Jul\_vs\_Jun\_Diff

FROM RAINFALL\_DATA

ORDER BY DISTRICT;

## 9. Districts with the lowest rainfall in October:

SELECT DISTRICT,MIN(OCT) AS LOWEST\_RAINFALL\_OCT

FROM RAINFALL\_DATA

GROUP BY DISTRICT

ORDER BY LOWEST\_RAINFALL\_OCT;

## 10. Top 5 driest districts (lowest ANNUAL rainfall):

SELECT DISTRICT,MIN(ANNUAL) AS LOWEST\_ANNUAL\_RAINFALL

FROM RAINFALL\_DATA

GROUP BY DISTRICT

ORDER BY MIN(ANNUAL)

LIMIT 5;

## 11. Districts where Jan-Feb rainfall is greater than Oct-Dec:

SELECT DISTRICT,ROUND(JAN-FEB,2) AS GREATEST\_RAINFALL

FROM RAINFALL\_DATA

WHERE JAN-FEB < (OCT-'DEC');

SELECT DISTRICT,(CASE WHEN JAN-FEB > OCT-'DEC' THEN "GREATER" ELSE "SMALLER" END) AS RAINFALL

FROM RAINFALL\_DATA

## 12. State-wise average monthly rainfall for March:

SELECT STATE\_UT\_NAME,ROUND(AVG(MAR),2) AS AVG\_MONTHLY\_RAINFALL

FROM RAINFALL\_DATA

GROUP BY STATE\_UT\_NAME;

## 13. Districts where August rainfall is less than May:

SELECT DISTRICT,AUG

FROM RAINFALL\_DATA

WHERE AUG < MAY;

## 14. Total rainfall in monsoon season (Jun–Sep) for all India:

SELECT SUM(JUN+JUL+AUG+SEP) AS JUN\_SEP\_TOTAL\_RAINFALL

FROM RAINFALL\_DATA;

## 15. Districts with rainfall below 100 mm in all 4 winter months (Nov–Feb):

SELECT DISTRICT, NOV, `DEC`, JAN, FEB

FROM RAINFALL\_DATA

WHERE NOV < 100 AND `DEC` < 100 AND JAN < 100 AND FEB < 100;

SELECT COLUMN\_NAME

FROM INFORMATION\_SCHEMA.COLUMNS

WHERE TABLE\_NAME = 'rainfall\_data'

AND TABLE\_SCHEMA = 'rainfall'

## 16. Rank districts within each state by ANNUAL rainfall:

SELECT STATE\_UT\_NAME, DISTRICT, RANK() OVER ( PARTITION BY STATE\_UT\_NAME ORDER BY ANNUAL) AS DISTRICT\_RANK

FROM RAINFALL\_DATA;

## 17. Districts where total Mar–May rainfall exceeds Jan–Feb:

SELECT DISTRICT, JAN, FEB, MAR, APR, MAY

FROM RAINFALL\_DATA

WHERE (MAR + APR + MAY) > (JAN + FEB);

## 18. States with more than 5 districts having over 2500 mm rainfall:

SELECT STATE\_UT\_NAME,COUNT(DISTRICT) AS DISTRICT\_COUNT

FROM RAINFALL\_DATA

WHERE (JAN + FEB + MAR + APR + MAY + JUN + JUL + AUG + SEP + OCT + NOV + `DEC`) > 2500

GROUP BY STATE\_UT\_NAME

HAVING COUNT(DISTRICT) > 5

ORDER BY DISTRICT\_COUNT;

## 19. Districts where May is the wettest month:

SELECT DISTRICT, MAY

FROM RAINFALL\_DATA

WHERE MAY >= JAN AND MAY >= FEB AND MAY >= MAR AND MAY >= APR

AND MAY >= JUN AND MAY >= JUL AND MAY >= AUG AND MAY >= SEP

AND MAY >= OCT AND MAY >= NOV AND MAY >= `DEC`;

## 20. Average rainfall in all districts of Arunachal Pradesh:

SELECT ROUND(AVG(JAN + FEB + MAR + APR + MAY + JUN + JUL + AUG + SEP + OCT + NOV + `DEC`),2) AS avg\_annual\_rainfall

FROM RAINFALL\_DATA

WHERE STATE\_UT\_NAME = 'Arunachal Pradesh';