Q1. Prove that the points (2, -1), (0, 2), (2, 3) and (4, 0) are the coordinates of the vertices of a parallelogram and find the angle between its diagonals. **5 Marks**

Q2. Find the angle between the line joining the points (2, 0), (0, 3) and the line $x + y = 1$. **5 Marks**

Q3. Find the equation of the straight line which passes through the point of intersection of the lines $3x - y = 5$ and $x + 3y = 1$ and makes equal and positive intercepts on the axes. **5 Marks**

Q4. Prove that the following sets of three lines are concurrent: **5 Marks**

$15x - 18y + 1 = 0$, $12x + 10y - 3 = 0$ and $6x + 66y - 11 = 0$

Q5. The line $2x + 3y = 12$ meets the x-axis at A and y-axis at B. The line through (5, 5) perpendicular to AB meets the x-axis and the line AB at C and E respectively. If O is the origin of coordinates, find the area of figure OCEB. **5 Marks**

Q6. Find the equations of the medians of a triangle, the equations of whose sides are: **5 Marks**

$3x + 2y + 6 = 0$, $2x - 5y + 4 = 0$ and $x - 3y - 6 = 0$

Q7. Prove that the lines $2x - 3y + 1 = 0$, $x + y = 3$, $2x - 3y = 2$ and $x + y = 4$ form a parallelogram. **4 Marks**

Q8. If p is the length of perpendicular from the origin to the line whose intercepts on the axes are a and b, then show that $\frac{1}{p^2} = \frac{1}{a^2} + \frac{1}{b^2}$. **4 Marks**

Q9. Read the case study given below and answer the questions that follow: **4 Marks**

In a coordinate system, a student plots two lines: $2x - y + 3 = 0$ and $x + 2y - 1 = 0$. After plotting these lines, the student notices that the lines form a triangle with the coordinate axes. Calculate the area of the triangle formed by these lines and the x-axis and y-axis. Then, find the coordinates of the vertices of the triangle.

1. Find the x-intercept of the line $2x - y + 3 = 0$.
2. Find the y-intercept of the line $x + 2y - 1 = 0$.
3. Calculate the intersection point of the lines $2x - y + 3 = 0$ and $x + 2y - 1 = 0$.

OR

3. Determine the area of the triangle formed by the lines $2x - y + 3 = 0$, $x + 2y - 1 = 0$, and the coordinate axes.

Q10. In Exercises, find the equation of the line which satisfy the given conditions: **4 Marks**

Point R(h, k) divides a line segment between the axes in the ratio 1 : 2. Find equation of the line.

Q11. Read the case study given below and answer the questions that follow: **4 Marks**

A company is designing a new warehouse and plans to place its main entrance at the intersection of two straight lines: $2x + y - 5 = 0$ and $x - 3y + 4 = 0$. The company also wants to ensure that the entrance is equidistant from the lines $x - y + 2 = 0$ and $2x + y - 3 = 0$. Find the coordinates of the entrance that satisfy this requirement.

1. Find the value of x when $y = \frac{13}{7}$ for the line $x - 3y + 4 = 0$.

2. Determine if the point $\left(\frac{11}{7}, \frac{13}{7}\right)$ satisfies the equation $2x + y - 5 = 0$.

3. Show that the point of intersection of the lines $2x + y - 5 = 0$ and $x - 3y + 4 = 0$ is $\left(\frac{11}{7}, \frac{13}{7}\right)$.

OR

3. Verify that the point $\left(\frac{11}{7}, \frac{13}{7}\right)$ is equidistant from the lines $x - y + 2 = 0$ and $2x + y - 3 = 0$.

Q12. Reduce the equation $3x - 2y + 6 = 0$ to the intercept form and find the x and y intercepts. **4 Marks**

Q13. Find the acute angle between the lines $2x - y + 3 = 0$ and $x + y + 2 = 0$. **4 Marks**

Q14. In the triangle ABC with vertices A (2, 3), B (4, -1) and C (1, 2), find the equation and the length of the altitude from the vertex A. **4 Marks**

Q15. The base of an equilateral triangle with side 2a lies along the y-axis such that the mid-point of the base is at the origin. Find vertices of the triangle. **4 Marks**

Q16. Prove that the lines $y = \sqrt{3}x + 1, y = 4$ and $y = -\sqrt{3}x + 2$ form an equilateral triangle. **5 Marks**

Q17. Find the equation of the side BC of the triangle ABC whose vertices are (-1, -2), (0, 1) and (2, 0) respectively. Also, find the equation of the median through (-1, -2). **4 Marks**

Q18. Find the equation of a straight line:
with slope $\frac{-1}{3}$ and y-intercept -4. **2 Marks**

Q19. A quadrilateral has vertices (4, 1), (1, 7), (-6, 0) and (-1, -9). Show that the mid-points of the sides of this quadrilateral form a parallelogram. **2 Marks**

Q20. Find the equation of the line passing through the point (5, 2) and perpendicular to the line joining the points (2, 3) and (3, - 1). **2 Marks**

Q21. Find the equation of a line passing through the point (2, 3) and parallel to the line $3x - 4y + 5 = 0$. **2 Marks**

Q22. Reduce the following equations into slope-intercept form and find their slopes and the y-intercepts. **2 Marks**
$6x + 3y - 5 = 0$.

Q23. Find the distance between $P(x_1, y_1)$ and $Q(x_2, y_2)$ when: **2 Marks**

i. PQ is parallel to the y-axis,

ii. PQ is parallel to the x-axis.

Q24. In Exercises, find the equation of the line which satisfy the given conditions: **2 Marks**
Passing through the points (–1, 1) and (2, -4).

Q25. Without using the distance formula, show that points (-2, -1), (4, 0), (3, 3) and (-3, 2) are the vertices of a parallelogram. **2 Marks**

Q26. Find the equation of the line which passes through the point (3, 4) and is such that the portion of it intercepted between the axes is divided by the point in the ratio 2 : 3. **2 Marks**

Q27. Find the distance of the point (4, 5) from the straight line $3x - 5y + 7 = 0$. **2 Marks**

Q28. Show that the line joining (2, -5) and (-2, 5) is perpendicular to the line joining (6, 3) and (1, 1). **2 Marks**

Q29. Find the equations of the lines, which cut-off intercepts on the axes whose sum and product are 1 and -6, respectively. **3 Marks**

Q30. Find the equation of the right bisector of the line segment joining the points (3, 4) and (-1, 2). **3 Marks**

Q31. Find the value of x for which the points (x, -1), (2, 1) and (4, 5) are collinear. **3 Marks**

RAVI TEST PAPERS & NOTES, WHATSAPP – 8056206308

JEE NEET CBSE AVAILABLE PDF SALES MATERIALS

1.	1. JEE MAIN 2013 TO 2025	RS.200
2.	2. JEE ADV 2013 TO 2025	RS.200
3.	3. JEE JAN 2025 ALL SHIFTS QUS ANS	RS.200
4.	4. JEE 40 DAYS PCM 120 CHAPTER WISE TESTS	RS.500
5.	5. JEE PYQ PCM CHAPTERWISE	RS.500
6.	6. JEE CHAPTER WISE 10 DPPS PCM CLASS 11 & 12	RS.350
7.	7. JEE 25 FULL MOCK TESTS WITH SOLUTIONS	RS.500
8.	8. MATHS 11 12 MCQS WORD FORMAT	RS.250
9.	9. CHEMISTRY 11 12 MCQS WORD FORMAT	RS.250
10.	10. PHYSICS 11 12 MCQS WORD FORMAT	RS.250
11.	11. CHEMISTRY FOUNDATION 11TH WORD PDF	RS.200
12.	12. CHEMISTRY FOUNDATION 12TH WORD PDF	RS.200
13.	13. MATHS FOUNDATION 11TH WORD PDF	RS.200
14.	14. MATHS FOUNDATION 12TH WORD PDF	RS.200
15.	15. PHYSICS FOUNDATION 11TH WORD PDF	RS.200
16.	16. PHYSICS FOUNDATION 12TH WORD PDF	RS.200
17.	17. 80 NEET FULL MOCK TEST PAPERS	RS.2000
18.	18. 80 நீட் தமிழ் மீடியம் FULL MOCK TEST PAPERS	RS.1500
19.	19. NEET 45 PCB EM SUBJECT 200 MARKS TESTS	RS.1000
20.	20. NEET 45 PCB தமிழ் மீடியம் SUBJECT 200 MARKS TESTS	RS.1000

CHECK WEBSITES FOR FREE PAPERS - www.ravitestpapers.com & www.ravitestpapers.in

21.	21. NEET BIOLOGY CHAPTER QUS BANK	RS.500
22.	22. NEET CHEMISTRYY CHAPTER QUS BANK	RS.500
23.	23. NEET PHYSICS CHAPTER QUS BANK	RS.500
24.	24. NEET இயற்பியல் CHAPTERS QUS BANK	RS.500
25.	25. NEET உயிரியல் CHAPTERS QUS BANK	RS.500
26.	26. NEET வேதியல் CHAPTERS QUS BANK	RS.500
27.	27. NEET 60 MARKS EM PCB SLIP 99 TESTS	RS.500
28.	28. NEET நீட் PCB 100 MARKS 86 CHAPTERS SLIP TESTS	RS.500
29.	29. NEET 9528 MCQS ANS TN உயிரியல் வேதியல் இயற்பியல் *NOT SOLVED ONLY ANSWERS*	RS.500
30.	30. NEET 16000 MCQS ANS TN STATE BIOLOGY CHEMISTRY PHYSICS *NOT SOLVED ONLY ANSWERS*	RS.750
31.	31. BIOLOGY FOUNDATION 11TH WORD PDF	RS.200
32.	32. BIOLOGY FOUNDATION 12TH WORD PDF	RS.200
33.	33. NEET 54 PCB FULL TESTS	RS.500
34.	34. PYQS SINGLE BIOLOGY NEET	RS.250
35.	35. PYQS SINGLE CHEMISTRY NEET	RS.250
36.	36. PYQS SINGLE PHYSICS NEET	RS.250
37.	37. NEET BIOLOGY CHAP PRE QUESTION WITH SOLUTION WORD PDF	RS.200
38.	38. NEET CHEMISTRY CHAP PRE QUS WITH SOLUTION WORD PDF	RS.200
39.	39. NEET PHYSICS CHAP PRE QUESTION WITH SOLUTION WORD PDF	RS.200
40.	40. NEET JUNE TO MARCH 47 PCB COMBINED 300+ QUS TESTS	RS.1000

41.	1. 12TH CBSE MATHS CHAPTER STUDY MATERIAL	RS.250
42.	2. 12TH CBSE PHYSICS CHAPTER STUDY MATERIAL	RS.250
43.	3. 12TH CBSE CHEMISTRY CHAPTER STUDY MATERIAL	RS.250
44.	4. 12TH CBSE BIOLOGY CHAPTER STUDY MATERIAL	RS.250
45.	5. 12TH CBSE COMPUTER CHAPTER STUDY MATERIAL	RS.250
46.	6. 12TH CBSE MATHS SLIP CHAPTER TESTS	RS.200
47.	7. 12TH CBSE PHYSICS CHAPTERS TESTS	RS.200
48.	8. 12TH CBSE CHEMISTRY SLIP CHAPTER TESTS	RS.200
49.	9. 12TH CBSE PCMB CSC MCQS ONLY (PER SUBJECT)	RS.100
50.	10. 12TH CBSE PCMB PREVIOUSLY ASKED QB (PER SUBJECT)	RS.150
51.	11. 12TH NOTES AND SAMPLE PAPER PCMB	RS.400
52.	12. 12TH CBSE ACCOUNTS STUDY MATERIALS	RS.250
53.	13. 12TH ECONOMICS STUDY MATERIALS	RS.250
54.	14. 12TH CBSE BUS STUDIES CHAPTER STUDY MATERIAL	RS.250
55.	15. 12TH CBSE AC BST ECO PRE YEAR PAPERS (PER SUBJECT)	RS.150
56.	16. 12TH NOTES AND SAMPLE PAPER AC BST ECO	RS.300
57.	17. 11TH CBSE MATHS CHAPTER STUDY MATERIAL	RS.250
58.	18. 11TH CBSE PHYSICS CHAPTER STUDY MATERIAL	RS.250
59.	19. 11TH CBSE CHEMISTRY CHAPTER STUDY MATERIAL	RS.250
60.	20. 11TH CBSE BIOLOGY CHAPTER STUDY MATERIAL	RS.250
61.	21. 11TH NOTES AND SAMPLE PAPER AC BST ECO	RS.300
62.	22. 11TH NOTES AND SAMPLE PAPER PCMB	RS.400

63.	23. 10TH CBSE MATHS CHAPTER STUDY MATERIAL	RS.250
64.	24. 10TH CBSE SCIENCE CHAPTER STUDY MATERIAL	RS.250
65.	25. 10TH CBSE SOCIAL SCIENCE CHAPTER STUDY MATERIAL	RS.250
66.	26. 10TH CBSE ENGLISH CHAPTER STUDY MATERIAL	RS.150
67.	27. 10TH CBSE HINDI CHAPTER STUDY MATERIAL	RS.150
68.	28. 10TH CBSE MATHS SLIP TESTS	RS.200
69.	29. 10TH CBSE SCIENCE SLIP TESTS	RS.200
70.	30. 10TH CBSE SST SLIP TESTS	RS.200
71.	31. 10TH CBSE MATHS FOUNDATION	RS.150
72.	32. 10TH CBSE SCIENCE FOUNDATION	RS.150
73.	33. 10TH CBSE SST FOUNDATION	RS.150
74.	34. 10TH NOTES AND SAMPLE PAPER MAT SCI SST	RS.300
75.	35. 9TH CBSE MATHS CHAPTER STUDY MATERIAL	RS.250
76.	36. 9TH CBSE SCIENCE CHAPTER STUDY MATERIAL	RS.250
77.	37. 9TH CBSE SST CHAPTER STUDY MATERIAL	RS.250
78.	38. 9TH NOTES AND SAMPLE PAPER MAT SCI SST	RS.300
79.	39. 9TH CBSE MATHS FOUNDATION	RS.150
80.	40. 8TH NOTES AND SAMPLE PAPER MAT SCI SST	RS.300
81.	41. 8TH CBSE MATHS FOUNDATION	RS.150
82.	42. 7TH NOTES AND SAMPLE PAPER MAT SCI SST	RS.300
83.	43. 7TH CBSE MATHS FOUNDATION	RS.150
84.	44. 6TH NOTES AND SAMPLE PAPER MAT SCI SST	RS.300

85.	45. 6TH CBSE MATHS FOUNDATION	RS.150
86.	46. 10TH MATHS FULL PAPERS COLLECTIONS	RS.250
87.	47. 10TH SCIENCE FULL PAPERS COLLECTIONS	RS.250
88.	48. 10TH SST FULL PAPERS COLLECTIONS	RS.250
89.	49. 12TH MATHS FULL PAPERS COLLECTIONS	RS.250
90.	50. 12TH PHYSICS FULL PAPERS COLLECTIONS	RS.250
91.	51. 12TH CHEMISTRY FULL PAPERS COLLECTIONS	RS.250
92.	52. 12TH BIOLOGY FULL PAPERS COLLECTIONS	RS.250

JOIN 2026 – 27 WHATSAPP JEE NEET TEST GROUP 1 YEAR FEES RS.4000

JOIN 2026 – 27 WHATSAPP CBSE 10 & 12TH TEST GROUP 1 YEAR FEES RS.3000