

- IX. Factors of $12x^2 - 92x$ are
 a) $4x(3x - 23)$ b) $4x(3x - 23x)$ c) $x(12x - 92)$ d) $4(3x^2 - 23x)$
- X. The coordinates of origin are
 a) (1, 0) b) (0, 0) c) (0, 1) d) (1, 1)

Q2. Fill in the blanks:

- i. The class size of the interval 20 – 30 is _____
- ii. Coefficient of y in the term $(-2x^2y)$ is _____
- iii. $a^{13} \times a^{-10} =$ _____
- iv. The horizontal axis in a line graph is called the _____

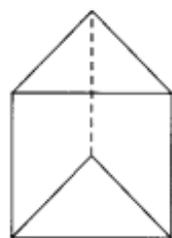
SECTION – B (2 marks each)

- Q3. If you have a spinning wheel with 3 green sectors, 5 black sectors and 10 red sectors, what is the probability of getting a green sector?
- Q4. Find the ratio of 20 paise to Rs 2.
- Q5. Using identity, evaluate $(92)^2$.
- Q6. Name the following polyhedrons.
 a) A polyhedron made of 4 triangles. b) A polyhedron made of 6 squares.
- Q7. The diagonals of a rhombus are 6cm and 8cm. Find its area.
- Q8. Find the value of m for which $2^m \div 2^{-6} = 2^{10}$.
- Q9. If 14 kg of pulses cost Rs. 441, then what is the cost of 22kg pulses?
- Q10. Divide $10x - 25$ by $2x - 5$.

SECTION – C (4 marks each)

(Attempt Any 5)

- Q11. What amount is to be repaid on a loan of Rs 12,000 for $1\frac{1}{2}$ years at 10% per annum compounded half yearly?
- Q12. Verify Euler's formula for a triangular prism



Triangular prism

- Q13. The area of a trapezium is 80sq.cm and the length of one of the parallel sides is 24cm and its height is 4cm. Find the length of the other parallel side.
- Q14. A school has 8 periods a day each of 45 minutes duration. How long would each period be, if the school has 9 periods a day, assuming the number of school hours to be the same?
- Q15. Factorise $x^2 + 9x + 20$
- Q16. Plot the given points on a graph sheet and check if the points lie on a straight line.
 (4,2), (3,3), (2,4), (5,4)

SECTION - D (5 marks each)

(Attempt Any 6)

Q17. Draw a pie chart of the data given below:

The time spent by a child during a day

Sleep 8 hours

School 6 hours

Homework 4 hours

Play 4 hours

Others 2 hours

Q18. Two lamps were bought for Rs. 8000 each. The shopkeeper made a loss of 4% on one lamp and a profit of 8% on the other lamp. Find his overall gain or loss.

Q19. Add $4y(3y^2 + 5y - 7)$ and $2(y^3 - 4y^2 + 5)$

Q20. A suitcase with measures 80cm x 48cm x 24cm is to be covered with a tarpaulin cloth. How many metres of tarpaulin of width 96cm is required to cover 100 such suitcases?

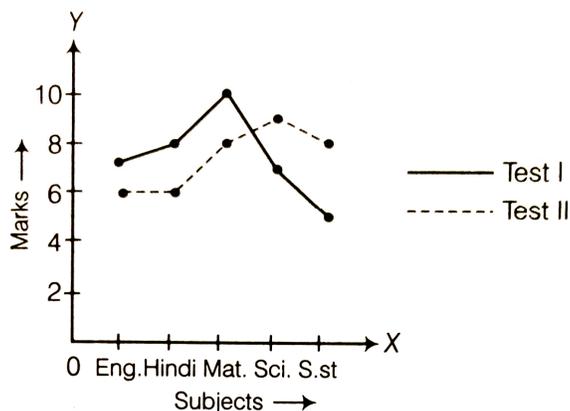
Q21. Simplify $\frac{25 \times t^{-4}}{5^{-3} \times 10 \times t^{-8}}$ ($t \neq 0$)

Q22. Fill in the blanks in the following table by a suitable number if x and y are directly proportional.

x	2	-	-	12	4	-
y	3	15	12	-	-	21

Q23. Factorise $16x^5 - 144x^3$

Q24. The graph given below, shows the marks obtained out of 10 by Sania in two different tests. Study the graph and answer the questions that follow.



- What information is represented by the two axes?
- In which subject / subjects did she score the highest in test 1?
- In which subject / subjects did she score the least in test 2?
- What is the marks scored by her in English in test 2?
- In which subject and which test did she score full marks?