

SECTION - A

1. Fill in the blanks:

(3x1 = 3)

- (a) The coefficient of y in $7x^2y$ is -----.
- (b) Simplest form of the rational number $\frac{35}{45}$ is -----.
- (c) An expression which has two terms is called a -----.

2. Solve the following :

(3x1 = 3)

- (a) If the side of an equilateral triangle is 15 cm then its perimeter is -----.
- (b) The value of $\frac{3}{-5} \times \frac{-5}{2}$ is -----.
- (c) The product of any rational number and its reciprocal is always -----.

SECTION - B

Question numbers 3 to 7 carry 2 marks each :

(5x2 = 10)

3. Divide : $\frac{-8}{35} \div \frac{24}{-56}$
4. A horse is tied to a pole with a 12 m long rope. Find the area where the horse can graze?
5. Find the height if the area of a triangle is 87cm^2 and the base is 15cm.
6. Add : $a+b$, $-3a+2b$, $4a+7b$.
7. Find the side of a square whose area is 324 cm^2 .

SECTION - C

Question numbers 8 to 13 carry 3 marks each :

(6x3= 18)

8. Find the perimeter of a triangle whose sides are x^2+20 , $2x^2+6x+7$ and $5x^2-4x+15$.
9. Which is greater? $-3\frac{2}{7}$, $-3\frac{4}{5}$

10. If $a = 2$ and $b = -3$, find the value of the expression $2a^2b + 2ab^2 + ab$.
11. A field is in the shape of a parallelogram with base 32m and height 8m. Find the cost of watering the field at the rate of Rs.8 / m^2 .
12. Simplify : $(\frac{3}{11} \times \frac{44}{7}) \div \frac{30}{49}$
13. Subtract $5a^2 - 7ab + 5b^2$ from $3ab - 2a^2 - 2b^2$

SECTION - D

Question numbers 14 to 17 carry 4 marks each :

(4x4 = 16)

14. A wire is in the shape of a rectangle. Its length is 40cm and breadth is 22cm. If the same wire is given the shape of a square, what will be the measure of each side? Which shape encloses more area?
15. Subtract $y^2 - 3y - 4$ from the sum of $4y^2 - 2y + 3$ and $-5y^2 + 6y$.
16. A verandah of width 2.25m is constructed all along outside a room which is 5.5m long and 4m wide. Find (i) area of the verandah, (ii) the cost of cementing the floor of the verandah at the rate of 50 / m^2 .
17. Find four rational numbers between $\frac{-2}{7}$ and $\frac{-1}{7}$.