PRISM
Colours of your Dreams

Std.: 8 (English)   **Mathematics**   **Marks: 50**

Date: **Time: 2 hrs**

Chapter: 1 to 9

Q.1 A) Choose the correct alternative.   **(5)**

1) 20 people can make a wall in 12 days. How many days will 16 people take to build the wall.

a. 5 days   b. 10 days   c. 15 days   d. 20 days

2) $a^2 + 10a + 25$

a. $(a - 5)(a - 5)$ b. $(a + 5)(a + 5)$
c. $(a - 5)(a + 5)$ d.   All of these

3) For all types of triangles the location of G (Centroid) is in the interior of the triangles.
a. True   b. False

4) When two parallel lines are intersected by a transversal eight angles are formed. If the measure of one of these eight angles is given rest seven can be found.
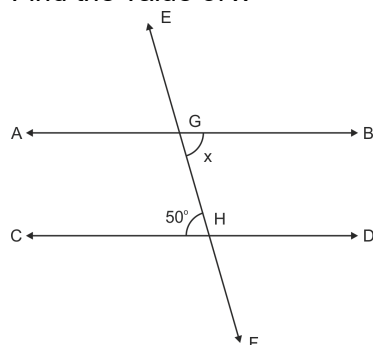a. True   b. False

5)

$\frac{23}{99}$ is ....

a. 0.2323...   b. Non terminating recurring.

c. $0.\overline{23}$ d. All of these.

B) Answer the following: **(5)**

1) Find the value of x

2) Expand
$(p + 8)(p - 3)$

3) Compare the following numbers.
-7, -2

4) which of the following statements are of inverse variation.
Number of workers on a job and time taken by them to complete the job.

5) Find the cube of the following numbers.
0.7

Q.2   **Solve: (Attempt any 5)**   **(10)**

1) A farmer sold foodgrains for 9200 rupees through an agent. The rate of commission was 2%. How much amount did the agent get.

2) Draw a line AB. Take a point C outside the line. Through point C draw a line parallel to line AB.

3) Factorize
$x^2 + 9x + 18$

4) Write the following rational numbers in decimal form.

$\frac{6}{21}$

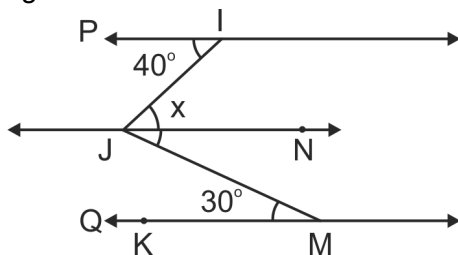**5)** Find the cube root of the following numbers.

-2744

6)
Expand : $\left(P + \frac{3}{5}\right)\left(P + \frac{7}{5}\right)$

Q.3   **Solve: (Attempt any 6)**   **(18)**

1)

In the given figure line p ∥ line l ∥ line q. Find ∠x with the help of measures given in the figure.

2)
length of the diagonal of square is $\sqrt{18}$. Find the side and perimeter.

3) Find the cube root of the following numbers.
729

4) Expand
$(m + 2n + 3r)^2$

5) In a school 30 students study in one class room. Total students are accommodated in 20 class rooms. How many class rooms will be required if 20 students are in one class.

6) The CP of a toaster is Rs. 1600 which is 20% below marked price. If the toaster is sold at a discount of 16% find the marked price and profit percent.

7) Factorize

$3p^3 + 375q^3$

Q.4 Answer the following: (Attempt any 3) (12)

1) Simplify

$(5x - 7y)^3 + (5x + 7y)^3$

2) A shopkeeper decided to sell a certain item at a certain price. He tags the price on the item by increasing the decided price by 25% while selling the item, he offers 20% discount. Find how many more or less percent he gets on decided price.

3) Simplify

$$\frac{x^2 - 10x + 9}{x^2 - 7x - 44} \times \frac{x + 4}{x - 1}$$

4) If 15 workers can build a wall in 48 hours, how many workers will be required to do the same work in 30 hours.