



GRADE: VI	SUBJECT: MATH	DATE: 10/03/25	TIME: 3 HRS	MARKS: 60
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SECTION A

Q.1) Multiple choice questions.

[10Q X 1M = 10M]

1) Take Meena's present age to be  $y$  years, what will be her age 5 years from now?

- a)  $y + 5$                       b)  $5 - y$                       c)  $y - 5$                       d)  $5y$

2) What is the decimal expansion of decimal  $\frac{1}{1000} \times 8$

- a) 0.8                      b) **0.008**                      c) 8000                      d) 0.08

3) The perimeter of a triangle of sides 2 cm, 3 cm and 4 cm is

- a) **9 cm**                      b) 18 cm                      c) 27 cm                      d) 36 cm

4) Decimal form of 'Eleven point two three five' is \_\_\_\_\_.

- a) 11.25                      b) 11.23                      c) 101.235                      d) **11.235**

5) The simplest form of  $\frac{45}{20}$  is

- a)  $\frac{9}{4}$                       b)  $\frac{4}{9}$                       c)  $\frac{9}{8}$                       d)  $\frac{2}{9}$

6) Find the value of  $21.04 - 13.34$

- a) 8.7                      b) 0.77                      c) **7.7**                      d) 9.7

7) A basket has  $x$  mangoes, how many mangoes are there in 5 baskets?

- a) 5                      b) **5x**                      c)  $6x$                       d)  $x$

8) The equivalent fraction of  $\frac{2}{3}$  is \_\_\_\_\_.

- a)  $\frac{2}{4}$                       b)  $\frac{2}{5}$                       c)  $\frac{2}{6}$                       d)  **$\frac{6}{9}$**

9)  $9 \text{ cm } 8 \text{ mm} =$  \_\_\_\_\_ cm

- a) 908                      b) **9.8**                      c) 9.08                      d) 9.80

10) Which is greater?

- a)  $\frac{1}{3}$                       b)  $\frac{1}{5}$                       c)  $\frac{1}{8}$                       d)  $\frac{1}{6}$

## SECTION B

**Q.2) Fill in the blanks.**

[5Q x 1M = 5M]

- 1) On subtracting  $\frac{3}{5}$  from  $\frac{8}{5}$ , the result is  $\frac{5}{5} = 1$
- 2) One side of a regular pentagon is 5 cm. Its perimeter is 25
- 3)  $27 + (-27) = \underline{0}$
- 4) When two ratios are equal, they are said to be in proportion.
- 5) The sum of  $0.007 + 8.5 + 30.08$  is 38.587

**Q.3) State true or false.**

[5Q x 1M = 5M]

- 1) - 5 is to the right of - 12 on a number line. → **True**
- 2) Number of matchsticks required to make a pattern of Z is 3. → **True**
- 3)  $(-5) + (-8) + 4 + 10 = -1$  → **False**
- 4) The Perimeter of a square is 4 times the length of the side. → **True**
- 5) Successor of 6999 is 6998. → **False**

## SECTION C

**Q.4) Solve the following.**

[5Q x 2M = 10M]

1) Write opposites of the following.

a) 45 m East

b) Increase in weight

**Ans: 45 m West**

**Ans: Decrease in weight**

2) Find the ratio of the following.

a) 10 minutes to 55 minutes

**Ans: Ratio of 10 minutes to 55 minutes =  $\frac{10}{55}$  minutes =  $\frac{2}{11}$  minutes**

3) Subtract: 5.842 km from 9.042 km

**Ans: 9.042 km**

**- 5.842 km**

**3.200 km**

4) The teacher distributes 9 pencils per student. Can you tell how many pencils are needed, give the number of students? ( Use t for the number of students )

**Ans: Given, Let t be the number of students, Pencils given to each student = 9**

**Total number of pencils = Number of pencils given to each student × Number of students**  
**= 9 x t = 9t**

5) Draw a tally marks table for the following data.

Sports	Cricket	Football	Basketball	Badminton	Chess
Number of students like	17	16	15	12	5

Ans:

Sports	Tally marks
Cricket	
Football	
Basketball	
Badminton	
Chess	

Q.5) Simplify.

[6Q x 3M = 18M]

1) Solve:  $\frac{3}{2} + \frac{2}{3} + \frac{1}{4}$

Ans:  $\frac{3}{2} + \frac{2}{3} + \frac{1}{4} = \text{LCM} = 12$

$$\frac{3 \times 6}{2 \times 6} + \frac{2 \times 4}{3 \times 4} + \frac{1 \times 3}{4 \times 3} = \frac{18}{12} + \frac{8}{12} + \frac{3}{12} = \frac{18+8+3}{12} = \frac{29}{12} = 2 \frac{5}{12}$$






2) Are 30, 40, 45 and 60 in proportion ?

Ans: Ratio of 30 to 40 = Ratio of 45 to 60

$$\frac{30}{40} = \frac{45}{60}, \quad 3 : 4 = 3 : 4 \quad \text{Since, } 30 : 40 = 45 : 60$$

Therefore, 30, 40, 45, 60 are in proportion.

3) Observe the given pictograph and answer the questions.

Activity Club	Number of students  = 2 students
Art	
Dance	
Karate	
Music	

a) Which activity club has maximum number of students?

Ans: Dance i.e. 14 students

b) Which activity club has minimum number of students?

**Ans: Karate i.e. 6 students**

c) Which activity clubs have equal number of students?

**Ans: Art and Music i.e. 8 students**

4) Find the value of:  $74.703 + 45.092 - 23.808$

Ans:

H	T	O	.	Th	Hth	Thth	
	7	4	.	7	0	3	
	4	5	.	0	9	2	
+	1	1	9	.	7	9	5

H	T	O	.	Th	Hth	Thth	
0	11	8	.	17	8	15	
1	1	9	.	7	9	5	
--		2	3	.	8	0	8
0	9	5	.	9	8	7	

5) If the cost of 8 m of cloth is Rs. 4200, find the cost of 4 m of cloth.

**Ans: Cost of 8 m cloth = Rs 4200.**

**Cost of 1 m = Rs  $4200 \div 8 =$  Rs 525**

**Cost of 4 m of cloth = Rs  $525 \times 4 =$  Rs 2100**

**Thus, the cost of 4m of cloth = Rs 2100**

6) Find the sum of:  $(-754) + (-67) + 34 + (-54)$

**Ans:  $(-754) + (-67) + 34 + (-54) = -754 - 67 + 34 - 54 = -821 - 20 = -841$**

## SECTION E

**Q.6) Word problems.**

**[3Q x 4M = 12M]**

1) A floor is 7 cm long and 3 cm wide. A square carpet of sides 2 cm is laid on the floor. Find the area of the floor that is not carpeted.

**Ans: Area of the floor = length  $\times$  breath**

**Area of the floor =  $7 \times 3 = 21 \text{ cm}^2$**

**Area of the square carpet = Side  $\times$  Side =  $2 \times 2 = 4 \text{ cm}^2$**

**Now, we will be subtracting the square carpet area from the floor's area to get the area of the floor that is not carpeted.**

**Hence, the area of the floor that is not carpeted =  $21 - 4 = 17 \text{ cm}^2$**

**Thus, the area of the floor that is not carpeted is  $17 \text{ cm}^2$ .**

2) In a college, out of 4500 students, 2500 are girls. Find the ratio of

a) Number of girls to the total number of students.

b) Number of boys to the number of girls.

c) Number of boys to the total number of students.

**Solutions: Given,**

**Total number of students = 4500, Number of girls = 2500**

**Number of boys = 4500 – 2500 = 2000**

a) **Ratio of the number of girls to the total number of students** =  $\frac{2500}{4500} = \frac{25}{45} = \frac{5}{9}$

b) **Ratio of the number of boys to the number of girls** =  $\frac{2000}{2500} = \frac{20}{25} = \frac{4}{5}$

c) **Ratio of the number of boys to the total number of students** =  $\frac{2000}{4500} = \frac{20}{45} = \frac{4}{9}$

3) Rakesh takes  $2\frac{1}{5}$  minutes to walk across the school ground. Rahul takes  $\frac{5}{4}$  minutes to do the same. Who takes less time and by what fraction?

**Solutions: Given,**

**Time taken by Rakesh to walk across the school ground =  $2\frac{1}{5} = \frac{11}{5}$  minutes**

**Time taken by Rahul to walk across the school ground =  $\frac{5}{4}$  minutes**

**Convert these fractions into like fractions,**

$$\frac{11}{5} = \frac{11 \times 4}{5 \times 4} = \frac{44}{20}, \quad \frac{5}{4} = \frac{5 \times 5}{4 \times 5} = \frac{25}{20}$$

$$\text{Clearly, } \frac{44}{20} > \frac{25}{20}$$

$$\frac{11}{5} > \frac{5}{4}$$

**∴ Rahul takes less time than Rakesh to walk across the school ground**

$$\text{Difference} = \frac{11}{5} - \frac{5}{4} = \frac{44}{20} - \frac{25}{20} = \frac{19}{20}$$

**Hence, Rahul walks across the school ground by  $\frac{19}{20}$  minutes**