

GREENLAWNS SCHOOL, WORLI  
Terminal Examination 2018  
MATHEMATICS

Std : VI  
Date: 21/9/18

Marks: [80]  
Time: 1 ½ hrs

Question 1.

1. Write the numeral for: Four lakh sixty seven thousand three hundred six.  
Also write the number in International system. [1]
2. Find the difference between the smallest and the greatest 5 digit number. [½]
3. Evaluate :  $479 \times 87 + 479 \times 13$  [1]
4. Evaluate by filling in the blanks:  $15 \times (12-3) = 15 \times \underline{\hspace{1cm}} - \underline{\hspace{1cm}} \times 13$  [2]  
 $\hspace{10em} = \underline{\hspace{1cm}} - 45$   
 $\hspace{10em} = \underline{\hspace{1cm}}$
5. Use associative property and evaluate  $4 \times 398 \times 25$  [1]
6. Using the number line solve  $-5 - (-3)$  [1]
7. -15 and -2 state the number that is greater [½]
8. Express: p minus 5 is equal to x in algebraic form. [½]
9. Write the degree of polynomial for  $3x + xy^2 - 8yz$  [½]
10. Arrange -5,-3,15,0 in descending order [½]
11. Complete the magic square: [1½]

	7	6
9	5	
4		8

Question 2.

- a. If  $p=3$ ,  $q=-5$ ,  $r=4$  find  $3pq+10pr+2qr$  [2]
- b. Find the HCF of 144, 216, and 312 by long division method. [2]
- c. Find the mean proportion between 4 and 36. [2]
- d. Solve:  $\left(6\frac{3}{4} \div 2\frac{5}{8}\right) \div \left(1\frac{2}{7} \times 3\frac{1}{4}\right) + \left(3\frac{1}{8} \times 2\frac{3}{4}\right)$  [3]
- e. At what speed in km is a train travelling, if it is covering 45m every 9 secs. [1]

Question 3.

- a. Add:  $(x+3y)$  and  $(2x+3y)$  and then subtract  $(x-2y)$  [2]
- b. Simplify:  $39-18 \div 3-2 \times 3$  [2]
- c. A metal contains 56% tin, 20% zinc and rest is brass. Find the quantity of brass in 750 gm of this metal. [2]

- d. If 8 kg of rice costs `420, what will be the cost 18 kg of rice? How much kg rice can be bought for `1890 [3]
- e. In a proportion  $9 : 5 :: x : 60$ , find the value of x. [1]

Question 4.

- a. The age of a man is 38 years more than the age of his son. If the sum of their ages is 82 years, find the age of the son and his father. [3]
- b. Subtract the sum of  $5x^2 - 8x + 6$  and  $3x^2 - 2x + 7$  from the sum of  $3x^2 - 4x + 2$  and  $7 - 5x^2 - 6x$  [3]
- c. A train 140 m long crosses a railway platform 180 m long in 16 secs. At what speed it is travelling. [2]
- d. Stuti went to the market with `3000 in cash. Out of this money, she purchased one frock, one toy and one bag costing `675.85, `318 and `1972.75 respectively. How much money is left with her? [2]

Question 5.

- a. Find the smallest number which when increased by 3 is exactly divisible by the numbers 21, 45, 63, 81, 210. [3]
- b. Solve:  $2\frac{2}{7}$  of  $15\frac{3}{4} \times 2\frac{1}{4} \div \frac{4}{7}$  of  $2\frac{5}{8}$  [3]
- c. Find the product of  $(x^2 - 2x + 3)(x - 3)(4x^2 + 2x)$  [2]
- d. The area of a rectangle is the product of its length and breadth where as its perimeter is twice the sum of the length and the breadth. Frame a formula for area and perimeter. Find the area and perimeter where length = 5cm and breadth = 2cm [2]

Question 6.

- a. In the formula  $\frac{9c}{5} = F - 32$  and  $F = -40$  find c. [2]
- b. From a piece of wire  $12\frac{3}{4}$  m long, a small piece of length  $3\frac{5}{6}$  m has been cut off. What is the length of the remaining piece? [2]
- c. One fourth of a number is increased by 7 and the result is multiplied by 3 and the output is 26. Find the number. [3]
- d. 1200 boys and 600 girls are examined in a test. 42% of the boys and 30% of the girls passed. Find the number of students who failed. [3]

Question 7.

- a. If  $x=2, y=-2, z=3$  find the value of  $x^2 + y^2 + z^2 - 2xy - 2yz - 2zx$  [2]
- b. Find the product of  $a+b-c$  and  $2a-3b$  and then add  $9a^2+2b^2-3c^2$  [3]

c. Solve:  $\frac{1}{3} \left( 2\frac{1}{2} + 3\frac{1}{3} \right) \div \frac{2}{9} \left( 3\frac{1}{8} - 1\frac{1}{12} \right)$  [3]

d. A car is travelling at a speed of 54km/hr. How much time will it take to cover 600m? [2]

Question 8.

a. If cost of 15 bananas is ` 84, how many bananas can be bought for `140 [2]

b. The income of Ruchi and Rajan are in the ratio 4:7. If Ruchi earns ` 16800 per month, how much does Rajan earn per month? [2]

c. Simplify:  $28 - [15 - \{8 + 20 \div (7 - \overline{8-6})\}]$  [3]

d. Evaluate:  $2.86 \times 7.5 + 45.4 \div 0.2$  [3]

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