IDEAL INDIAN SCHOOL, DOHA – QATAR

MODEL QUESTION PAPER:2021 -2022

PERIODIC TEST-1

MATHEMATICS

CLASS : VIII **Max.Marks : 40**

Duration : 1.5 Hrs

General Instructions:

- **This question paper contains two parts A and B. Both part A and B have internal choices.**
  PART – A:
- **It consists of TWO sections – I and II**
- **Section I has 7 questions of 1 mark each. Internal choice has been provided in two questions**
- **Section II has 2 questions on Case study. Each case study has 5 sub parts out of which only 4 need to be attempted**
  PART – B:
- **Question No 10 to 13 are Very Short Answer Type questions of 2 marks each.**
- **Question No 14 to 17 are Short Answer Type questions of 3 marks each.**
- **Question No 18 is a Long Answer Type question of 5 marks.**
- **Internal choice has been provided in 1 question of 2 marks, 1 question of 3 marks and 1 question of 5 marks. You have to attempt only one of the alternatives in all such questions.**

PART – A

SECTION-I

(Question 1 to 7 carries 1 mark each)

1. Name the property under multiplication used in $\frac{-17}{5} \times \frac{-5}{17} = 1$.
2. What is the value of $\frac{1}{2} \times \frac{3}{5}$.
3. Find the solution of the equation $2x - 3 = 7$.
4. Write the rational numbers that are equal to its reciprocals.
5. Seven times a number is 42.Write this statement in the form of an equation.
6. If x is an odd number. What is the largest odd number preceding x?

   OR

   When 9 is added to twice a number we get 57.Find the number.
7. Name two quadrilaterals in which diagonals do not bisect each other?

   OR

   The sides of a pentagon are produced in order. What is the sum of its exterior angles?

SECTION - II

All case study based questions are compulsory. Attempt any four sub parts of each question.
(Each sub part carries 1 mark)

Case study based - 1

8. An algebraic equation is an equality involving variables. In an equation the values of the expressions on the LHS and RHS are equal. This happens to be true only for certain values of the variable. These

values are the solutions of the equation. A linear equation in one variable is an equation that can be written in the form ax + b = c, where a, b and c are Real numbers.

i. The number of solutions of a linear equation in one variable is _____.

a) 0 b) 1 c) 2 d) infinite

ii. The solution of $\frac{x}{5} + \frac{x}{5} = 10$.

a) 20 b) 25 c) 50 d) None of these

iii. If x = a, then which of the following is not always true for an integer k.

a) kx = ax b) $\frac{x}{k} = \frac{a}{k}$ c) x – k = k – a d) x + k = k + a

iv. The sum of ages of three brothers is *x* years, After 5 years, the sum of their ages will be__.

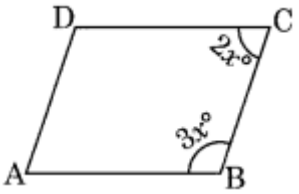
a) (x + 3)years b) (x + 5) years c) (x + 10)years d) (x+15) years

v. The lengths of the sides of an equilateral triangle is (x + 2), then the perimeter is_____.

a) x + 6 b) 3x + 2 c) 3x + 6 d) 2x + 6

Case study based - 2

9. A farmer has a field in the form of a parallelogram ABCD. In which the length of the measures of adjacent sides are 50 m and 35 m. One of his cow is suffering from some disease. To take good care of her, he tied the cow at one corner B of the parallelogram field ABCD.



i. What is the length of the boundary of the field that the cows can graze?

a) 85m b) 1500m c) 170m d) 5035

ii. The measure of ∠A - ∠C is

a) 360° b) 0° c) 90° d) 180°

iii. The false statement about the field ABCD is

a) Adjacent angles are supplementary b) Opposite angles are equal

c) Diagonals bisect each other at right angles d) opposite sides are equal

iv. Value of x is _____

a) 152° b) 40° c) 28° d) 66°

v. Sum of the angles of the field ABCD is

a) 540° b) 180° c) 720° d) 360°

PART - B

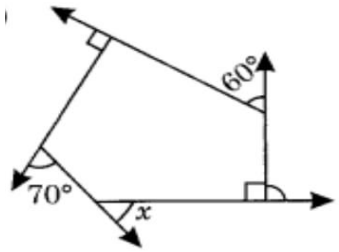
(Question No 10 to 13 carries 2 marks each)

10. Represent $\frac{-3}{4}$ on a number line.

11. Sum of two the numbers is 95. If one exceeds the other by 15, find the numbers.

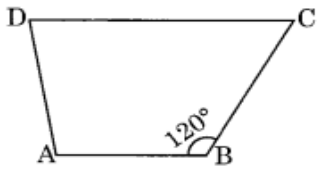
12. Solve $4z + 3 = 6 + 2z$.

13. Find x in the following figures



OR

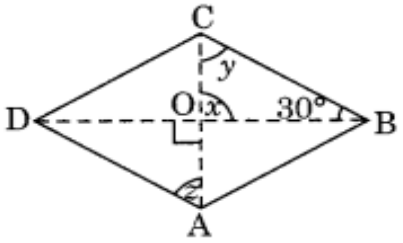
Find ∠C in the below figure if $\bar{AB} \parallel \bar{DC}$



(Question No 14 to 17 carries 3 marks each.)

14. Find any five rational numbers between $\frac{5}{6}$ and $\frac{5}{8}$.

15. In parallelogram ABCD, find the value of x, y and z.
Justify your findings.



16. A grandfather is ten times older than his granddaughter. He is also 54 years older than her. Find their present ages.

OR

Fifteen years from now Ravi's age will be four times his present age. What is Ravi's present age?

17. Solve $\frac{z}{z+15} = \frac{4}{9}$.

(Question No.18 carries 5 mark)

18. Using suitable properties find,

$$\frac{-2}{10} \times \frac{-3}{11} - \frac{2}{7} - \frac{3}{11} \times \frac{3}{5}$$

OR

The numerator of a rational number is less than its denominator by 3.If the numerator becomes three times and the denominator is increased by 20, the new number becomes $\frac{1}{8}$ .Find the original number.

****