**MATHEMATICS**

**CLASS: VIII**                                                                    **MAX. MARKS: 20**

**DATE: 25/05/2023**                                                          **TIME:  40 MINUTES**

## General Instructions:

1. This question paper contains four sections A, B, C and D. Each section is compulsory. However, there are internal choices in some questions.
2. Section A has 4 MCQ and 1 Assertion-Reason based questions of 1 mark each.
3. Section B has 2 Very Short Answer (VSA)-type questions of 2 marks each.
4. Section C has 2 Short Answer (SA)-type questions of 3 marks each.
5. Section D has 1 Long Answer (LA)-type question of 5 marks .

| | **SECTION – A** |
|---|---|
| | [This section comprises of multiple choice questions (MCQ) of 1 mark each] |
| 1. | Which property allows you to compute $\frac{-2}{3} + \left(\frac{1}{10} + \frac{4}{9}\right)$ as $\left(\frac{-2}{3} + \frac{1}{10}\right) + \frac{4}{9}$ ?<br><br>A) Closure  B) Commutativity  C) Associativity  D) Distributivity |
| 2. | If 8x = 20 + 3x, then the value of x is<br><br>A) –4  B) 4  C) $\frac{-20}{11}$  D) $\frac{20}{11}$ |
| 3. | The regular polygon of 4 sides is<br><br>A) a square  B) a rectangle  C) a rhombus  D) a parallelogram |
| 4. | The measure of each exterior angle of a regular polygon of 12 sides is<br><br>A) 90º  B) 60º  C) 40º  D) 30º |
| 5. | A statement of assertion is followed by a statement of reason. Choose the correct option.<br>**Assertion (A) : Sum of all exterior angles of any polygon is 360º.**<br>**Reason (R) : Sum of all interior angles of any polygon is 360º.**<br>A) Both **Assertion** and **Reason** are true, and **Reason** is the correct explanation for **Assertion**.<br>B) Both **Assertion** and **Reason** are true, but **Reason** is not the correct explanation for **Assertion**.<br>C) **Assertion** is true, but **Reason** is false.<br>D) **Assertion** is false, but **Reason** is true. |
| | **SECTION – B** |
| | [This section comprises of very short answer type questions (VSA) of 2 marks each] |
| 6. | Solve for x :          0.25(2x – 3) – 0.5(x – 2) = 0.25(6x – 5)<br><br>**OR**<br><br>Solve for m:     4(2m — 3) + 2 (7m + 1) + 4 = 3(5m — 1) + 4 |
| 7. | Find x:<br> |

## SECTION – C

[This section comprises of short answer type questions (SA) of 3 marks each]

| 8. | Find using distributivity $\left(\dfrac{-3}{4} \times \dfrac{2}{3}\right) + \left(\dfrac{-3}{4} \times \dfrac{-5}{6}\right)$ |
|---|---|

| 9. | Solve for x:    $\dfrac{2x + 7}{5} - \dfrac{3x + 11}{2} = \dfrac{2x + 8}{3} - 5$ <br><br> **OR** <br><br> Solve for m:    $m - \dfrac{m-1}{2} = 1 - \dfrac{m-2}{3}$ |
|---|---|

## SECTION – D

[This section comprises of long answer type question (LA) of 5 marks ]

| 10 | a) RUNS is a parallelogram. Find x and y.                [3 marks]
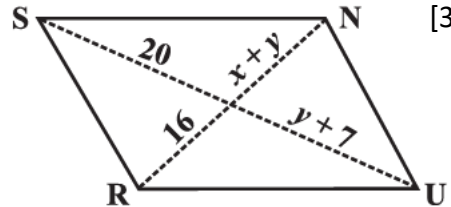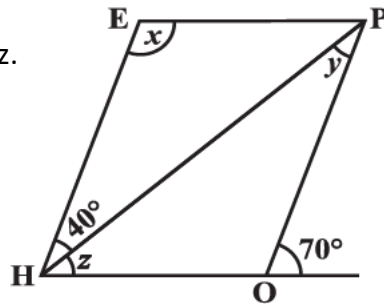


b) The measures of two adjacent angles of a parallelogram are in the ratio 3 : 2. Find the measure of each of the angles of the parallelogram.                [2 marks]
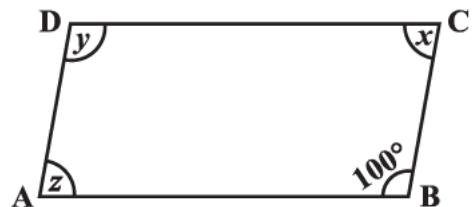
**OR**

a) HOPE is a parallelogram.                [3 marks]
   Find the angle measures of x, y and z.



b) ABCD is a parallelogram. Find the values of x y and z                [2 marks]

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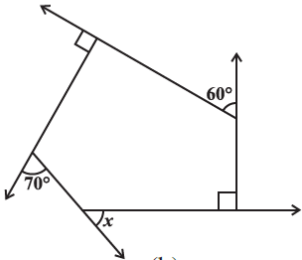5. Section D has 1 Long Answer (LA)-type question of 5 marks .

| | |
|---|---|
| **SECTION – A** <br> [ This section comprises of multiple choice questions of 1 mark each] | |
| 1. | The regular polygon of 4 sides is <br><br> A) a square      B) a rectangle      C) a rhombus      D) a parallelogram |
| 2. | If 8x = 20 + 3x, then the value of x is <br><br> A) –4      B) 4      C) $\frac{-20}{11}$      D) $\frac{20}{11}$ |
| 3. | The measure of each exterior angle of a regular polygon of 12 sides is <br><br> A) 90º      B) 60º      C) 40º      D) 30º |
| 4. | Which property allows you to compute $\frac{-2}{3} + \left(\frac{1}{10} + \frac{4}{9}\right)$ as $\left(\frac{-2}{3} + \frac{1}{10}\right) + \frac{4}{9}$? <br><br> A) Closure      B) Commutativity      C) Associativity      D) Distributivity |
| 5. | A statement of assertion is followed by a statement of reason. Choose the correct option. <br> **Assertion (A) : Sum of all exterior angles of any polygon is 360º.** <br> **Reason (R) : Sum of all interior angles of any polygon is 360º.** <br> A) Both **Assertion** and **Reason** are true, and **Reason** is the correct explanation for **Assertion**. <br> B) Both **Assertion** and **Reason** are true, but **Reason** is not the correct explanation for **Assertion**. <br> C) **Assertion** is true, but **Reason** is false. <br> D) **Assertion** is false, but **Reason** is true. |
| | **SECTION – B** <br> [This section comprises of very short answer type questions (VSA) of 2 marks each] |
| 6. | Find x: <br><br>  |

| 7. | Solve for x :    $0.25(2x - 3) - 0.5(x - 2) = 0.25(6x - 5)$ |
|---|---|
|  | **OR** |
|  | Solve for m:    $4(2m - 3) + 2(7m + 1) + 4 = 3(5m - 1) + 4$ |

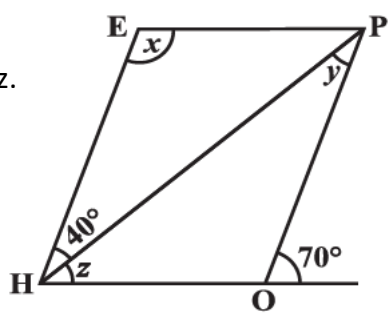| | **SECTION – C** <br> [This section comprises of short answer type questions (SA) of 3 marks each] |
|---|---|

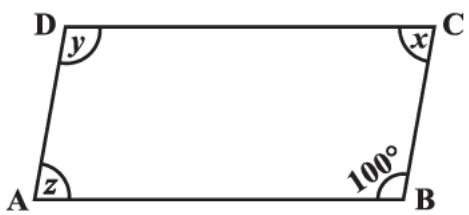| 8. | Solve for x:    $\dfrac{2x + 7}{5} - \dfrac{3x + 11}{2} = \dfrac{2x + 8}{3} - 5$ |
|---|---|
|  | **OR** |
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| 9. | Find using distributivity $\left(\dfrac{-3}{4} \times \dfrac{2}{3}\right) + \left(\dfrac{-3}{4} \times \dfrac{-5}{6}\right)$ |

| | **SECTION – D** <br> [This section comprises of long answer type question (LA) of 5 marks ] |
|---|---|

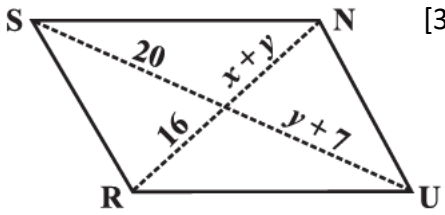| 10 | a) HOPE is a parallelogram.    Find the angle measures of x, y and z.    [3 marks] |
|---|---|



b) ABCD is a parallelogram. Find the values of x y and z    [2 marks]



**OR**

a) RUNS is a parallelogram. Find x and y.    [3 marks]



b) The measures of two adjacent angles of a parallelogram are in the ratio 3 : 2. Find the measure of each of the angles of the parallelogram.    [2 marks]

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