

# ***City International School***

**First Summative Assessment 2015 - 2016**

**Date : 28/09/2015**

**Std : VII**

**Subject : Mathematics**

**Marks : 60**

**Time : 2 hrs**

Answer to this paper must be written on the paper provide separately.

You will not be allowed to write during the first 15 minutes.

This time is spent in reading the question paper.

The time given at the head of this paper is the time allowed for writing the answers.

Attempt all questions from Section A and three questions from Section B.

The intended marks for questions or parts of questions are given in the bracket ( ).

All working including rough work must be clearly shown and must be done on the same sheet as the rest of the answer.

## **SECTION – A [30 MARKS]**

**Attempt all questions in this section.**

**Q. 1** a. Add - 0.75, 4.39, 0.006 (2)

b. Find the product of  $45 \times 3\frac{2}{9}$  (2)

c. Evaluate  $\sqrt{\frac{49}{36}}$  (2)

d. Express the ratio in simplest form:  $\frac{1}{4} : \frac{1}{6} : \frac{1}{8}$  (2)

e. Find the fourth proportional to  $\frac{5}{2}, \frac{20}{7}$  and  $\frac{7}{2}$  (2)

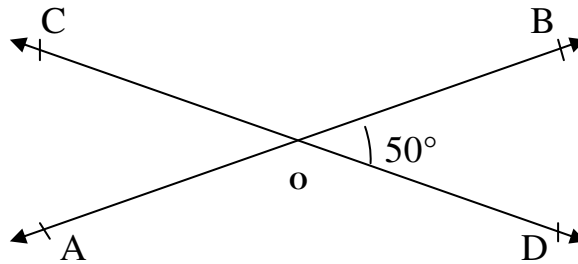
**Q. 2** a. If 15 dolls cost ₹468, what do 35 dolls cost? (2)

b. Simplify:  $4x^3 - 2x^2 + 5x + 1 + 8x + x^2 - 6x^3 + 7 - 6x + 3 - 3x^2 - x^3$  (2)

c. Find the product of:  $(7 + 4q)(7 - 4q)$  using the correct identity. (2)

d. Solve  $\frac{x}{7} + x = 16$  (2)

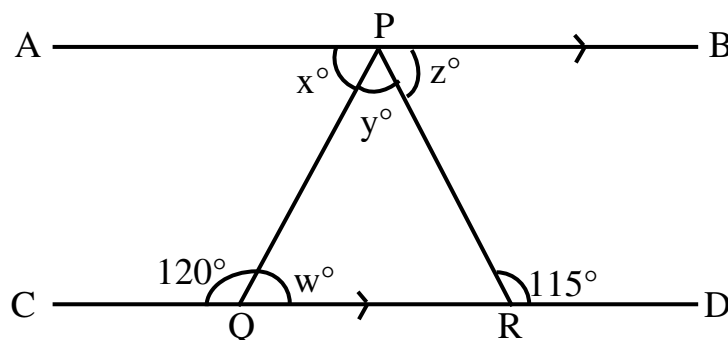
- e. In the given figure, two straight lines AB and CD intersect at a Point O. If  $\angle BOD = 50^\circ$ , find the measure of  $\angle AOC$  and  $\angle BOC$ , giving reasons. (2)



- Q. 3**
- Using ruler and compasses, construct an angle of  $60^\circ$ . (2)
  - Find the measure of each interior angle of a regular Hexagon. (2)
  - The perimeter of a square plot of land is 160 meters. Find its area. (2)
  - Express  $\frac{1}{37}$  as a recurring decimal. (2)
  - Divide:  $8m^2 - 6mn$  by  $2m$  (2)

**SECTION – B [30 MARKS]**  
**Attempt any three questions in this section.**

- Q. 4**
- Multiply:  $5m^2 - 6m + 3$  by  $2m^2 + 1$  (3)
  - Simplify:  $\frac{2.5 \times 40.4}{50}$  (3)
  - In the given figure,  $AB \parallel CD$ . Find the angle W, X, Y, Z giving reason. (4)



**Q. 5** a. Solve:  $\frac{8-3x}{5x+31} = \frac{2}{3}$  (3)

- b. Moving at the rate of 70km/hr, a car completes a journey in 18 minutes. (3)  
How long would it take to complete this journey, if the speed is increased to 84km/hr?

c.  $\left(8\frac{1}{4} - \overline{1\frac{5}{8} + 2\frac{1}{2}}\right) \div \left[3\frac{1}{2} + \left\{8\frac{1}{2} - \left(8 - \overline{4 - 2\frac{1}{2}}\right)\right\}\right]$  (4)

**Q. 6** a. Divide:  $x^3 - x + 6$  by  $x + 2$  (2)

- b. Divide ₹16250 among John, Jehan and Jay in the ratio 5 : 7 : 13. (2)

- c. A path 3m wide is running along the inside of the boundary of a rectangular field 116m by 76m. How much money is needed to gravel the path at the rate of ₹42.50 per m<sup>2</sup>? (3)

**Q. 7** a. Using ruler and compasses, construct an angle of 135°. (3)

- b. Find the number of sides of a regular polygon if each of its interior angle measures 156°. (3)

c. Expand: Using correct identity) (4)  
i.  $(5x + y)^2$  ii.  $(8x - 3y)^2$