Std. 9 28-11-2014

Second Unit Test in MATHEMATICS

Time : 1 hr. M. Marks: 20

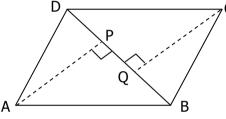
Section : A $(4 \times 1 = 4 \text{ marks})$

- 1. In a parallelogram ABCD, if $\angle A = 60^{\circ}$, then find $\angle D$.
- 2. How many solutions does the equation 2x + 5y = 8 has?
- 3. If the angles of a quadrilateral are in the ratio of 4:3:4:7, find the largest angle of the quadrilateral.
- 4. For what value of p, does the point (p, 2) lie on the line 3x + y = 11.

Section : B (3 x 2 = 6 marks)

- 5. Construct $\triangle ABC$ in which AB + AC = 5.6cm, BC = 4.5cm and $\angle B = 45^{\circ}$.
- 6. ABCD is a parallelogram and AP and CQ are perpendiculars from vertices A and C on diagonal BD. Show that
 - i) $\triangle APB \cong \triangle CQD$

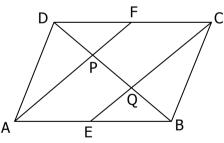
ii) AP = CQ



7. Find four solutions of 2x + 3y = 6.

Section : C $(2 \times 3 = 6 \text{ marks})$

8. In a parallelogram ABCD, E and F are the midpoints of sides AB and CD respectively. Show that the line segments AF and EC trisect the diagonal BD.



9. The taxi fare in a city is as follows: For the first kilometer, the fare is Rs. 10/- and for the subsequent distance, it is Rs. 6/- per kilometer. Taking x kilometer as distance covered and Rs. y as total fare, write a linear equation for this information and draw its graph.

Section : D (1 x 4 = 4 marks)

10. Construct $\triangle PQR$ in which PQ + QR + PR = 12cm, $\angle Q = 45^{\circ}$ and $\angle R = 60^{\circ}$. Also measure the three sides.

-X-X-X-X-X-X-