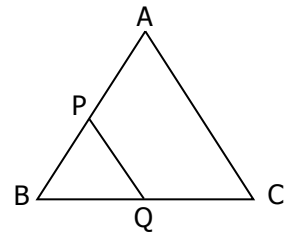
Std. 9 Time : 1 hr.
23-11-2016 Third Unit Test in **MATHEMATICS** M. Marks: 20

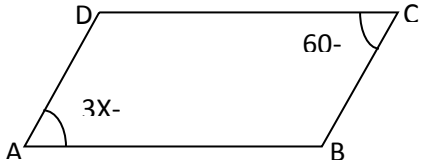
GENERAL INSTRUCTIONS:
1. Attempt all the questions
2. Section- A consists of 4 questions of 1 mark each.
3. Section-B consists of 3 questions of 2 marks each.
4. Section- C consists of 2 questions of 3 marks each.
5. Section- D consist 1 questions of 4 marks.

Section – A [1 X 4 = 4 marks]

1. If (2,0) is the solution of $2x + 3y = k$, then find the value of k.
2. Write the equation $y=3x+5$ in the form of $ax + by + c = 0$ and write the value of c.
3. In the given fig: P and Q are the mid points of AB and BC respectively. If PQ=3cm, find the length of AC.



4. In the given fig: If ABCD is a parallelogram then find the value of x.



Section – B [2 X 3 = 6 marks]

5. Give the geometric representation of $y = 3$ as an equation in two variables.
6. Construct a triangle ABC in which BC = 8cm, $\angle B = 60^0$, and AB + AC = 13cm.
7. Show that the diagonals of a rhombus are perpendicular to each other.

Section – C [3 X 2 = 6 marks]

8. Construct a triangle ABC in which $\angle B = 60^0$, $\angle C = 45^0$ and its perimeter is 12cm.

9. The auto-rickshaw fare in a city is as follows: For the first kilometer the fare is Rs. 10/- and for the subsequent distances it is Rs 4 per km. Taking the distance covered as x km and fare as Rs y, write the linear equation for the above information and draw its graph.

Section – D [4 X 1 = 4 marks]

10. ABC is a triangle right angled at C. A line through the midpoint M of hypotenuse AB and parallel to BC intersects AC at D. Show that
    a) D is midpoint of AC. B) MD $\perp$ AC.
    c) CM = MA = ½ AB.

-x-x-x-x-x-x-