



TEST PAPER: MATHEMATICS

Time: 50 Minutes

Class: 10th I.C.S.E.

Max. Marks: 30 Marks

Date: 20th June, 2018

Marking Scheme: Four questions carry 10 marks each. Questions have 3 subparts each. Subparts (a) and (b) carry 3 marks each and subpart (c) carries 4 marks.

Question 1:

- The centroid of a triangle ABC is (1, 1). Two of the vertices are A (3, -4), B (-4, 7). Find the coordinates of the third vertex.
- For what value of k, the points (k, -2), (1, 4) and (-3, 16) in given order are collinear?
- If the line joining the points A(4, -5) and B(4, 5) is divided by the point P such that $AP/AB = 2/5$, find the co-ordinates of P.

Question 2:

- Find the ratio in which the line segment PQ, where P (-5, 2) and Q (2, 3), is divided by the y-axis.
- A point P is mapped onto P' when reflected in the y-axis and P' is mapped onto P'' when reflected in the x-axis. If the coordinates of P'' are (-7, 4), find the coordinates of P.
- The three vertices of a parallelogram are (3,4), (3,8) and (9,8). Find the fourth vertex.

Question 3:

- Find the point of trisection of the line segment AB, where A (-6, 11) and B (10, -3)
- Find the ratio in which the point X (-6, h) divides the join of P (-4, 4) and Q (6, -1) and here hence find the value of h.
- Use a graph paper for this question.
The point P (2, -4) is reflected in the $x = 0$ to get the image P'.
 - Write down the co-ordinates of P'.
 - Point P' is reflected in the line $y = 0$, to get image P''. Write down the co-ordinates of P''.
 - Name the figure PP'P''.
 - Find the area of the figure PP'P''.