Test 7 : Analytical Geometry Time: 1 hours Marks: 50

Question 1



1.1	Find the gradient of line PQ	(3)
1.2	If it is given that $PQ \perp PS$, find the value of x in the point S	(5)
1.3	1.3.1 Assuming that $x = -7$, find the gradient of line SR	(2)
	1.3.2 What does this tell us about SR? Explain.	(2)
1.4	Join PR	
	1.4.1 What type of triangle is ΔPRS ? Show all working.	(5)
	1.4.2 Find the area of $\triangle PRS$	(3)
		[20]



2.1

2.2

2.3

2.4



(5)	
[15]	

(3)

(4)

(3)

Question 3

Sketched below is $\triangle ABC$. The co-ordinates of the vertices are as indicated on the sketch.



3.1	Calculate the co-ordinates of the mid-points D and E of AB and AC respectively.	(4)
3.2	Show that DE // DC	(3)
3.3	Given the points $P(-1;0)$, $A(-3;-3)$, $R(-2;-4)$ and $M(0;-1)$, show that	
	PARM is a parallelogram by proving both pairs of opposite sides parallel.	(4)
3.4	The vertices of a rhombus $R(-4;2)$, $H(-4;-3)$, $O(0;0)$, $M(0;5)$. Prove that:	
	the diagonals RO and HM bisect each other.	(4)
		[15]