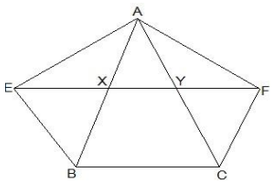
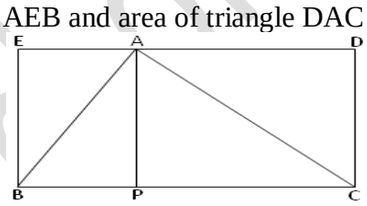
CHOITHRAM SCHOOL MANIKBAGH INDORE

CLASS IX, Session: 2017-18

Subject: MATHEMATICS **Assignment No: 3**

Allotment Date: 17/11/17 **Submission Date: 22/11/17**

S.No	QUESTION	MARKS	LEVEL
	OBJECTIVE TYPE		
1	The quadrilateral formed by joining the mid points of sides of a quadrilateral PQRS, taken in order, is a rectangle, if (A) PQRS is a rectangle (B) PQRS is a trapezium (C) Diagonals of PQRS are unequal (D) None of these	1 mark	Knowledge
2	The median of a triangle divides it into two (A) Triangles of equal area (B) Congruent triangles (C) Right triangles (D) Isosceles triangles	1 mark	Understanding
3	If a parallelogram and a rectangle are equal in areas and have the same base and are situated on the same side, then the quotient of $\frac{Perimeter\ of\ rectangle}{perimeter\ of\ parallelogram}$ is (A) equal to 1 (B) greater than 1 (C)less than 1 (D) indeterminate	1 mark	H.O.T.
	SHORT ANSWER TYPE I		
4	In the given figure BC || EF, EB ||AC and CF|| AB. Prove that area (ΔAEB) =(ΔACF) 	2 Marks	Knowledge
5	Prove that parallelograms on the same base and between same parallels are equal in area.	2 Marks	Understanding
6	If an angle of a parallelogram is two-third of its adjacent angle, find all the interior angles of the parallelogram.	2 Marks	logic
7	The medians BE and CF of a triangle ABC intersect at G. Prove that area of Area of ΔGBC = Area of quadrilateral AFGE	2 Marks	H.O.T.
	SHORT ANSWER TYPE II		
8	If the two diagonals of a parallelogram are equal, then prove that it is a rectangle.	3 Marks	Understanding
9	A farmer has distributed his field in the form of a parallelogram amongst his son and daughter. According to the given figure area of triangle BAC of the land was given to son and combined lands comprising of area of triangle AEB and area of triangle DAC to his daughter  (a) Is the distribution of land between son and daughter equal? Justify your answer (b) What value inculcated by the farmer.	3 Marks	Value based
10	State and prove the converse of Midpoint theorem	3 Marks	Multi concept
11	Prove that the line joining the mid points of the diagonals of a trapezium is parallel to the parallel sides of the trapezium and is equal to half the difference of these sides.	5 Marks	H.O.T.
12	ABCD is a trapezium in which AB|| DC, DC = 30cm and AB= 50cm. If X and Y are respectively the mid points of AD and BC, prove that area (DCYX) = $\frac{7}{9}$ area (XYBA)	5 Marks	Logic