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Assignment

Date: __ / __ / ____ **Name: _____** **Max Marks: 25**

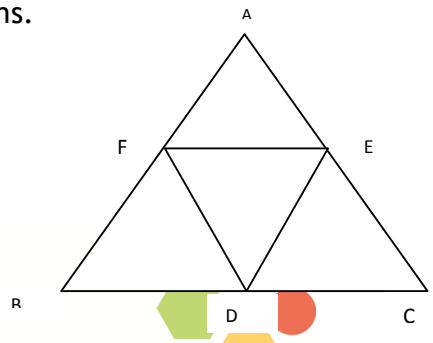
Section- A (One Marks Each)

1 The diagonals AC and BD of a parallelogram ABCD intersect each other at point O. If ∠DAC =32° and ∠AOB =70°, what is the measure of ∠DBC?

2 In a quadrilateral ABCD, ∠A +∠D =180°. What special name can be given to this quadrilateral?

3 ABCD is a rhombus, such that ∠ACB =40°. Find the measure of ∠ADB.

4 In the given figure, BDEF and FDCE are parallelograms. What is the relation between the sides BD and CD?



Section-B (Two Marks Each)

5 Show that the quadrilateral formed by joining the midpoints of the sides of a rhombus, taken in order, is a rectangle

6 P is the midpoint of side BC of a parallelogram ABCD, such that ∠BAP =∠DAP. Prove that AD =2CD.

7 In Δ ABC, AB =5cm, BC =8cm and CA =7cm. If D and E are the respective midpoints of AB and BC, determine the length of DE.

8 P and Q are the points on the opposite sides AD and BC of a parallelogram ABCD, such that PQ passes through the point of intersection O of its diagonals AC and BD. Show that PQ is bisected at O.

Section-C (Three Marks Each)

9 E and F are the respective midpoints of the non-parallel sides AD and BC of a trapezium ABCD. Prove that EF ∥ AB and EF =1/2 (AB+CD)

10 If D, E and F are the respective midpoints of the sides AB, BC and CA of a triangle ABC, prove that the triangle is divided into four congruent triangles by joining these midpoints.

11 E is the midpoints of median AD of Δ ABC and BE is produced to meet AC at F. show that AF =1/3 AC.

Section-D (Four Marks Each)

12 Prove that the quadrilateral formed by the angle bisectors of a parallelogram is a rectangle.