Loci and Construction - Unit No. 11
Test # 1

Time: 30 Minutes Total Marks: 20

Part A – Multiple Choice Questions (1 × 5 = 5 marks)

1. Point of concurrency of medians of a triangle is called:

- (a) centroid
- (b) circumcentre
- (c) incentre
- (d) orthocentre

2. Locus of points equidistant from two intersecting lines is:

- (a) circle
- (b) perpendicular bisector
- (c) angle bisector
- (d) parallel lines

3. Locus of all points equidistant from a fixed point is:

- (a) circle
- (b) perpendicular bisector
- (c) angle bisector
- (d) parallel lines

4. An equilateral triangle:

- (a) can be isosceles
- (b) can be right angled
- (c) has each angle equal to 60°
- (d) none of these

5. A triangle can be constructed if the sum of the measure of any two sides is _____ the measure of the third side.

- (a) less than
- (b) greater than
- (c) equal to
- (d) greater than and equal to

Part B – Short Questions (2 × 5 = 10 marks)

1. Define Locus.

2. Construct triangle LMN with LM = 7 cm, ∠L = 70°, ∠M = 45° and locate a point equidistant from L and M, 3 cm from L.

3. Construct ΔABC with AB = 5 cm, BC = 6 cm, AC = 7 cm and verify that perpendicular bisectors are concurrent.

4. Construct triangle DEF with DE = 4.8 cm, EF = 4 cm, ∠E = 45° and draw all altitudes to find orthocentre.

5. Verify that the angle bisectors of ΔABC are concurrent with AB = 4.5 cm, ∠A = 45°, AC = 5.3 cm.

Part C – Long Question (5 × 1 = 5 marks)

1. There is a treasure buried 24 km from point A and equidistant from points B and C. Use perpendicular bisector and circle to locate it using scale 1 cm = 10 km.

Loci and Construction - Unit No. 11
Test # 2

Time: 30 Minutes Total Marks: 20

Part A – Multiple Choice Questions (1 × 5 = 5 marks)

1. A median of a triangle joins:

- (a) vertex to midpoint of opposite side
- (b) midpoints of sides
- (c) angles
- (d) altitudes

2. An equilateral triangle:

- (a) can be isosceles
- (b) can be right angled
- (c) has each angle equal to 60°
- (d) none of these

3. Locus of all points equidistant from a fixed point is:

- (a) circle
- (b) perpendicular bisector
- (c) angle bisector
- (d) parallel lines

4. Locus of points equidistant from a fixed line is:

- (a) two parallel lines
- (b) a circle
- (c) a triangle
- (d) none of these

5. Point of concurrency of medians of a triangle is called:

- (a) centroid
- (b) circumcentre
- (c) incentre
- (d) orthocentre

Part B – Short Questions (2 × 5 = 10 marks)

1. Define Locus.

2. Construct triangle LMN with LM = 7 cm, ∠L = 70°, ∠M = 45° and locate a point equidistant from L and M, 3 cm from L.

3. Draw the perpendicular bisector of a segment EF = 5.4 cm as locus of equidistant points from E and F.

4. Construct triangle BCD with BC = 5 cm, ∠B = 62°, CD = 4.7 cm and identify any ambiguous case.

5. Construct triangle RST with RS = 6.8 cm, ∠S = 90°, ST = 7.5 cm and find a point equidistant from RS and RT and 4.5 cm from R.

Part C – Long Question (5 × 1 = 5 marks)

1. There is a treasure buried 24 km from point A and equidistant from points B and C. Use perpendicular bisector and circle to locate it using scale 1 cm = 10 km.

Loci and Construction - Unit No. 11
Test # 3

Time: 30 Minutes Total Marks: 20

Part A – Multiple Choice Questions (1 × 5 = 5 marks)

1. A median of a triangle joins:

- (a) vertex to midpoint of opposite side
- (b) midpoints of sides
- (c) angles
- (d) altitudes

2. Locus of points equidistant from a fixed line is:

- (a) two parallel lines
- (b) a circle
- (c) a triangle
- (d) none of these

3. Point of concurrency of medians of a triangle is called:

- (a) centroid
- (b) circumcentre
- (c) incentre
- (d) orthocentre

4. A triangle can be constructed if the sum of the measure of any two sides is _____ the measure of the third side.

- (a) less than
- (b) greater than
- (c) equal to
- (d) greater than and equal to

5. Locus of all points equidistant from a fixed point is:

- (a) circle
- (b) perpendicular bisector
- (c) angle bisector
- (d) parallel lines

Part B – Short Questions (2 × 5 = 10 marks)

1. Define Locus.

2. Construct ΔLMN with LM = 4.9 cm, ∠L = 51°, ∠M = 38° and verify that medians are concurrent.

3. Construct triangle DEF with DE = 4.8 cm, EF = 4 cm, ∠E = 45° and draw all altitudes to find orthocentre.

4. Construct ΔABC with AB = 5 cm, BC = 6 cm, AC = 7 cm and verify that perpendicular bisectors are concurrent.

5. Construct triangle BCD with BC = 5 cm, ∠B = 62°, CD = 4.7 cm and identify any ambiguous case.

Part C – Long Question (5 × 1 = 5 marks)

1. There is a treasure buried 24 km from point A and equidistant from points B and C. Use perpendicular bisector and circle to locate it using scale 1 cm = 10 km.