CLASS-9th
SUBJECT: MATHEMATICS

<u>Very Short Answer Type</u>
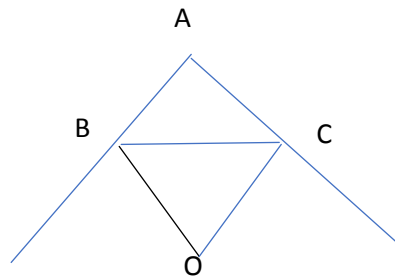
1. The Number 1.2̅7̅ in the form of p/q is
   a. 14/11   b. 14/9
   c. 14/13   d.14/15

2. The sides of a triangle are 12cm,16cm,and 20cm. Its area is
   a. 48cm^2 b. 96cm^2

   c. 120cm^2 d. 160cm^2

3. Coordinates of point are (0,6), then ordinate of the point is :-
   a. 0   b. -6

   C. -6   d. -0 .

4. The Image of the point (2,5) in y-axis is _____.

5. Zeros of t^2-2t are _____ and _____.

6. The perimeter of an isosceles triangle is 32cm. The ratio of the equal side to the base is 3:2, then area of triangle is _____.

7. The value of $4\sqrt{(81)^{-2}}$ is _____.

8. On Simplifying $(\sqrt{5} + \sqrt{7})^2$, we get

   a. 12   b. $\sqrt{35}$

   c. $\sqrt{5}+\sqrt{7}$ d. 12+2$\sqrt{35}$

9. Evaluate (101)^3.

10. Find the zero of polynomial 2-3x.

11. An exterior angle of a triangle is 115^0 and its two interior opposite angles are equal. Find the measure of each equal angle.

12. In a triangle ABC, AB=AC and $\angle A$ =80°, Then find the measure of $\angle$C.
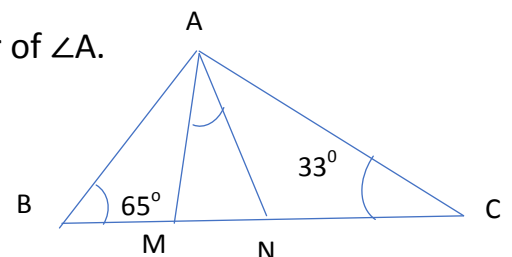
<u>SHORT ANSWER TYPE QUESTIONS:-</u>

1. Find four solutions for linear equations in two variables 2x-3y=-11.

2. If non parallel sides of a trapezium are equal. Prove that it is cyclic.

3. Two opposite angles of a parallelogram are $(3x-2)^o$ and $(50-x)^o$. Find the measure of each angle of parallelogram.

4. Prove that equal chords of a circle are equidistant from the centre.

<u>SHORT ANSWER TYPE QUESTIONS:-</u>

1. BO and CO are bisectors of the exterior angles B and C formed by producing sides AB and AC of triangle ABC intersect each other at Point O. Prove that $\angle BOC=90^o-1/2\angle A$.

2. If two parallel lines are intersected by transversal then bisectors of interior angles forms a rectangle.

3. In triangle ABC , AM ⊥ BC and AN is the bisector of ∠A.
If ∠B=65° and ∠C=33°. Find ∠MAN.

4. Draw the graphs of the linear equations 4x-3y+4=0
   and 4x+3y-20=0.Find the area bounded by these lines and x-axis .

5. If two equal chords of a circle intersects within the circle , prove that the segment of one chord are equal to corresponding segments of other chord .

6. Numbers 50, 42, 35, 2x+10, 2x-8, 12, 11, 8 are written in descending order. If their median is 25, Find the value of x.

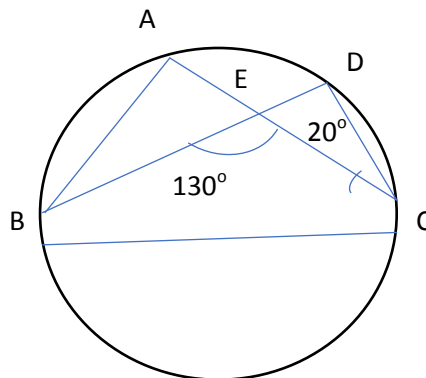LONG ANSWER TYPE QUESTIONS :-

1. The marks scored by 750 students in an examination are given in the form of a frequency distribution table

MARKS	600-640	640-680	680-720	720-760	760-800	800-840	840-880
NO. OF STUDENTS	16	45	156	284	172	59	18

Draw a histogram and frequency polygon.

2. A,B,C and D are point on circle . AC and BD intersect at a point E such that $\angle BEC=130^{o}$ and $\angle ECD=20^{o}$. Find $\angle BAC$.

3. If diagonals of a quadrilateral are equal and bisect each other at right angles , then it is a square.