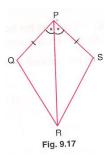
SYLLABUS: PERIMETER AND AREA, CONGURENT TRAINGLES, LINEAR EQUATIONS IN ONE VARIABLE, TRIANGLE AND ITS PROPERTIES.

GENERAL INSTRUCTIONS: Draw Diagrams with Pencils.

- All questions are compulsory. Maximum Marks are 60.
- The question paper consists of 24 Questions.
- **Section A**: Question 1 to 6 are 1mark each.
- **Section** B : Question 7 to 12 are 2 marks each.
- **Section** C : Question 13 to 18 are 3 marks each.
- **Section** C : Question 19 to 24 are 4 marks each.

SECTION A: $(1 \times 6 = 6)$

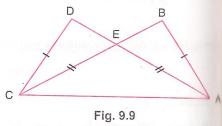
- 1. 1 hectare = _____ m^2
- 2. The lengths of two sides of a right triangle are 5 cm and 12 cm. Find the length of the hypotenuse.
- 3. In the kite shown in Fig. 9.17, PQ = PS, and \angle QPR = \angle SPR. Find the third pair of corresponding parts to make \triangle PQR \cong \triangle PSR by SAS congruence condition.



- **4.** 8x + 5 = 6x 5. Find x
- 5. Solve the following equation: $\frac{3}{5}x 6 = 3$
- **6.** Find the area of parallelogram having base = 40 cm and height = 20 cm.

SECTION B: $(2 \times 6 = 12)$

- 7. The area of triangle is 90 cm². If its base is 15 cm, find its altitude.
- **8.** \triangle ABC is isosceles with AB = AC. If \angle A = 70°, what is the measure of \angle B?
- **9.** In Fig. 9.9, it is given that AB = CD and AD = BC prove that $\triangle ADC \cong \triangle CBA$.

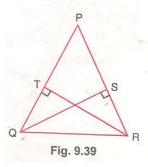


- **10.** Solve: $\frac{6 \times -2}{5} = \frac{2 \times -1}{3} \frac{1}{3}$
- 11. Find the area of Rhombus having diagonals of length 21 cm and 30 cm.

12. A tablecover 5 m \times 3 m, is spread on a meeting table. If 25 cm of the table cover is hanging all around the table, find the area of the table top.

SECTION C: $(3 \times 6 = 18)$

- **13.** A rectangular lawn is 20 m by 20 m. It has two roads each 2 m wide running in the middle of it. One parallel to the length and the other parallel to the breadth. find the area of the roads.
- **14.** If a wire of 440 m length is moulded in the form of a circle and a square turn by turn, find the ratio of the area of the circle to that of square.
- **15.** One of the exterior angles of triangle is 100°. The interior opposite angles are equal to each other. Find the measure of these equal interior opposite angles.
- **16.** QS and RT are the altitude of \triangle PQR, and QS = RT (Fig. 9.39).
 - (i) is $\triangle QRS \cong \triangle RQT$ by RHS congruence condition?
 - (ii) State the three pairs of corresponding parts which make $\Delta QRS \cong \Delta RQT$.



- **17.** Two equal sides of an isosceles triangle are each 2 cm more than thrice the third side. If the perimeter of triangle is 67 cm, find the lengths of its sides.
- 18. When $\frac{1}{3}$ is subtracted from a number and the difference is multiplied by 4, the result is 28. Find the number.

SECTION D: $(4 \times 6 = 24)$

- 19. The lengths of two sides of a right triangle are 5 cm and 12 cm. Find the length of the hypotenuse.
- **20.** The area of a circle is equal o the area of rectangle with sides 112 m and 88 m respectively. Find the circumference of the circle.
- **21.** Two poles of height 6 m and 11 m stand on a plane ground. If the distance between their feet is 12 m. Find the distance between their tops.
- 22. \triangle ABC is isosceles with AB = AC. AD is the altitude from A on BC (Fig. 9.37)
 - (i) Is $\triangle ABD \cong \triangle ACD$? Why?
 - (ii) State the three pairs of matching parts you have used to answer (i).
 - (iii) Is it true to say that BD =CD? Why?
- **23.** The ages of Leena and Heena are in the ratio 7 : 5. Ten years hence, the ratio of their ages will be 9 : 7. Find their present ages.
- 24. The lengths of sides of two triangles are given below. Check, if the triangles are right triangles.
 - (i) 6 cm, 8 cm, 10 cm

(ii) 5 cm, 8 cm, 11 cm