Very short answer and questions (1 mark)

1. What is the angle bisector of 50° ?
2. The perpendicular - bisector divides a line segment of 8cm into two parts of _____ cm. each.
3. We have to bisect _____ and _____ to get an angle of 135° in between them.
4. A perpendicular - bisector divides a line – segment into _____.
5. Which angle will be obtained in between by bisecting angles 60° and 90° ?

VERY SHORT ANSWER QUESTION (2 MARKS)

6. Draw perpendicular bisector of AB = 6.4cm.
7. Construct an angle of 15° using compass.
8. Construct an angle of 90° using compass.

SHORT ANSWER QUESTION (3 MARKS)

9. Draw a line segment of 7.2cm and bisect it. Also measure each part.
10. Draw a line segment PQ = 8cm. Draw a perpendicular at P.
11. Draw a line AB = 7.9cm and draw perpendicular at A and B. Are these two perpendiculars parallel to each other ?
12. Draw $\angle ABC = 32^{\circ}$ using protractor. Construct another angle equal to $\angle ABC$ using compass.
13. Draw a line segment XY = 12.4cm. Find $\frac{1}{4}$ XY using rular and compass. Verify the same using scale.
14. Construct an equilateral triangle the sum of its two sides is 10cm.

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LONG ANSWER QUESTIONS (5 MARKS)

15. Construct ΔXYZ in which XY = 4.5 cm, YZ = 5.0 cm. and ZX = 6.0 cm. Also draw angle bisector of largest angle.

16. Construct an equilateral triangle of side 6 cm and label its vertices as P, Q and R. From point Q draw a median QT.

17. Construct a right triangle ABC, $\angle B = 90^0$, AB + AC = 10 cm., BC = 6 cm.

18. Construct a ΔPQR in which QR = 7 cm, $\angle Q = 75^0$ and PQ + PR = 13 cm.

19. Construct a ΔPQR in which QR = 6 cm, $\angle Q = 30^0$ and PQ – PR = 3 cm.

20. Construct a ΔXYZ in which YZ=4.1 cm, $\angle Y=45^0$, and XY + XZ = 6.7 cm.

21. Construct a ΔPQR in which QR = 5 cm, $\angle R=45^0$ and PR-PQ = 1.6 cm.

22. Construct a ΔXYZ in which $\angle Y = 30^0$, $\angle Z = 90^0$ and XY + YZ + ZX = 11cm.

23. Construct a triangle ABC in which $\angle B = 45^0$, $\angle C=60^0$ and the perpendicular from the vertex A to the base BC is 4.5 cm.

24. Construct a triangle with perimeter 12 cm and ratio of their angles are 3 : 4 : 5.

25. Government wish to make an old age home of right triangular shape. If one side is 13m and sum of hypotenuse and other side is 15 m then

    Construct the triangle taking measurement in cm.

26. Eco club of a school created a triangular park ΔABC to maintain greenery of the school. If BC = 7m, $\angle B=75^0$, AB + AC = 13m then

    Construct ΔABC taking measurement in cm.

27. Construct a triangle DEF in which DE = 5 cm, $\angle D = 120°$ and EF – DF = 3.6 cm.

28. Construct a right angled triangle with base 5.4 cm and difference of hypotenuse and perpendicular is 1.9 cm.

29. Construct a triangle PQR with PQ = 5 cm. $\angle P = 105°$ and PR + QR = 8 cm.

30. Construct a triangle whose perimeter is 11.9 cm and base angles are 80° and 60°.

31. Construct an isosceles triangle XYZ with YZ = ZX = 8 cm. and median YT = 4 cm.

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CHAPTER-11

CONSTRUCTIONS

Hint & Answers

1. 25°
2. 4°
3. 120° & 150° and other suitable answers
4. two equal parts
5. 75°

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