

## BHARATH COACHING CENTRE

7<sup>th</sup> cbse

Maths

Total: 40

Triangles

Time: 45 mins

### SECTION-A

$$1 \times 6 = 6$$

1. The total measure of the three angles of a triangle is .....
2. The difference of the lengths of any two sides of a triangle is ..... than the length of the third side.
3. In a right-angled triangle.....is the longest side.
4. How many medians can a triangle have?
5. In the Pythagoras theorem, the triangle must be.....triangle.
6. What will be the ratio of perimeter of congruent triangles?

### SECTION-B

$$5 \times 2 = 10$$

1. The length of two sides of a triangle are 12 cm and 15 cm. What two measures should the length of the third side fall?
2. Define hypotenuse?
3. A diagonal of a rhombus measure 24 cm and 10 cm. Find its perimeter.
4. If a,12,13 are the three sides of a right triangle such that 13 is the hypotenuse. Then find the value of a?
5. Give that  $\triangle MNO \cong \triangle QRP$  if  $MO = 6\text{ cm}$ ,  $NO = 4\text{ cm}$ ,  $MN = 5\text{ cm}$ , what is the measure of (RP+QP)?

### SECTION-C

$$4 \times 3 = 12$$

1. Determine whether the triangle whose lengths of sides are 4,5,6 is a right-angled triangle.
2. An electric pole is 9m high. A steel wire is tied to the top of the pole is affixed at a point on the ground at a distance of 12m from the foot of the pole. Find the length of the wire.

3.  $\triangle ABC \cong \triangle FDE \wedge AB=3\text{ cm}, EF=8\text{ cm}, DF=10\text{ cm}$ . What are the respective lengths of AC and DE in cm?
4. If  $\triangle ABC \cong \triangle A'B'C'$ ,  $\angle C' = 3x - 40^\circ$ ,  $\angle B = 2x - 10^\circ$ , then what is the measure of  $\angle B$ ?

#### SECTION-D

$$3 \times 4 = 12$$

1. The length of a rectangle is 5 cm more than twice its breadth. If the perimeter of the is 166 cm. Find its dimensions.
2. A plane flies 320 km due west and then 240 km due north. Find the shortest distance covered by the plane to reach its original position.
3. A pole breaks from its base and strikes with a wall at height of 12m. the pole is 17m long. A person tries to make the same triangle by a ladder as made by the pole and the wall. If the length of the ladder as made by the pole and the wall. If the length of the ladder is 17m, then at how much distance should he keep the base the ladder from the wall?