Revised Exercise 17

Q.1 Fill in the blanks to make the statements true:

(i) The side of right angled triangle opposite to 90° is called _____.

(ii) The line segment joining a vertex of a triangle which is to the mid point of its opposite side is called a _____.

(iii) A line drawn from a vertex of a triangle which is _____ to its opposite side is called an attitude of the triangle.

(iv) The bisectors of the three angles of a triangle are_____.

(v) The points of concurrency of right bisector of the three sides of the triangle are _____ from its vertices.

(vi) Two or more triangle are said to be similar if they are equiangular and measures of their corresponding sides are_____.

(vii) The altitudes of a rights triangle are concurrent at the _____of the right angle.

Answer Key

(Fill in the Blank)

i	Hypotenuse	v	Equidistant
ii	Median	vi	Proportional
iii	Perpendicular	vii	Vertex
iv	Concurrent		

Q.2 Multiple Choice Questions. (Choose the correct answer).

(i) The triangle having two sides congruent is called

(a) Scalene **(b)** Right angled
(c) Equilateral **(d)** Isosceles

(ii) A quadrilateral having each angle equal to 90° is called

(a) Parallelogram **(b)** Rectangle
(c) Trapezium **(d)** Rhombus

(iii) The right bisector of the three sides of a triangle are

(a) Congruent **(b)** Collinear
(c) Concurrent **(d)** Parallel

(iv) The _____ altitudes of an isosceles triangle are congruent.

(a) Two **(b)** Three
(c) Four **(d)** None of these

(v) A point equidistant from the end points of a line – segments is on its_____.

(a) Bisector **(b)** Right - bisector
(c) Perpendicular **(d)** Median

(vi) _____ congruent triangles can be made by joining the mid-point of the sides of a triangle.

(a) Three **(b)** Four
(c) Five **(d)** Two

(vii) The diagonals of parallelogram _____ each other.

(a) Bisect **(b)** Trisect
(c) Bisect at right angle **(d)** None of these

(viii) **The medians of a triangle cut each other in the ration_____.**

(a) 4:1 **(b)** 3:1

(c) 2:1 **(d)** 1:1

(ix) **One angle on the base of an isosceles triangle is 30°. What is the measure o its vertical angle_____.**

(a) 30° **(b)** 60°

(c) 90° **(d)** 120°

(x) **If the three attitudes of a triangle are congruent then, the triangle will be_____.**

(a) Isosceles **(b)** Equilateral

(c) Right angled **(d)** Acute angled

(xi) **If two medians of a triangle are congruent then the triangle will be_____.**

(a) Isosceles **(b)** Equilateral

(c) Right angled **(d)** Acute angled

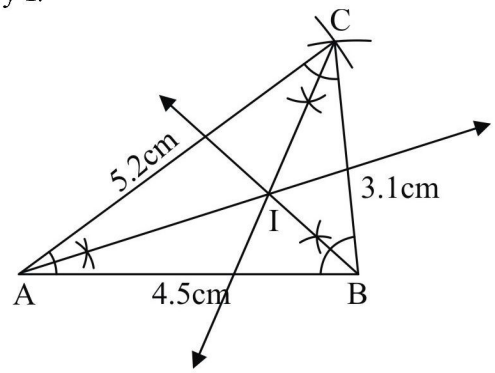
Answer Key
(MCQ'S)

i	d	vii	a
ii	b	viii	c
iii	c	ix	d
iv	a	x	a
v	b	xi	a
vi	b		

Q.3 **Define the following.**

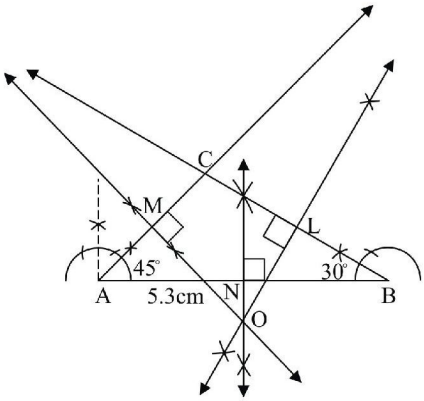
(i) **Incentre**

The point where the internal bisectors of the angles of a triangle meet is called incentre of a triangle. It is denoted by I.



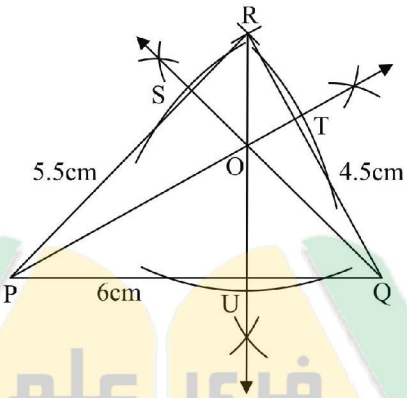
(ii) **Circumcentre**

The point of concurrency of the three perpendicular bisectors of the sides of a triangle is called circumcentre of a triangle. It is denoted by O.



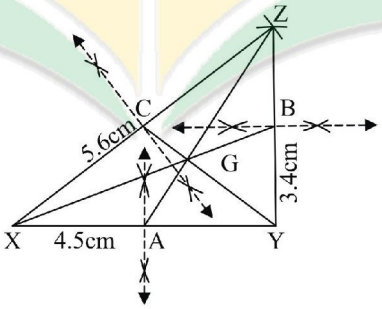
(iii) Orthocenter

The point of concurrency of three altitudes of a triangle is called orthocenter of a triangle. It is denoted by O.



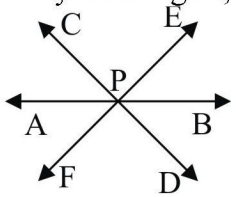
(iv) Centroid

The point of concurrency of three medians of a triangle is called centroid of a triangle. It is denoted by G.



(v) Point of concurrency

Three are more than three lines are said to be concurrent if these lines pass through the same point and that point is called the point of concurrency. In the figure, *P* is the point of concurrency.



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