TOPIC – Theorems on Concurrence

Subject : Mathematics	**Class-9**	**F. M. 15**
WORKSHEET NO. - 3	**Second Term**	**Date: 14.11.2020**

Q.1)   **Choose the correct option:**   **(1x15=15)**

i)   If the length of the circumradius of a right angled triangle is 7.5 cm then the length of its hypotenuse is
   a) 10 cm   b) 13 cm   c) 15 cm   d) 14 cm

ii) I is the incentre of Δ ABC. If $\angle BIC$ = 130° then measure of $\angle BAC$ is
   a) 40°   b) 50°   c) 60°   d) 80°

iii)   The internal bisectors of $\angle B$ and $\angle C$ of Δ ABC, intersect at the point O. If $\angle A$ = 80° , then measure of $\angle BOC$ is
   a)120°   b) 100°   c) 130°   d) 140°

iv)   In Δ ABC , $\angle B$ = 90°. If AB = 24 cm and BC = 7 cm, then the length of the circumradius of the triangle is
   a) 12 cm   b) 15 cm   c) 7.5 cm   d) 12.5 cm

v)   O is the circumcentre of Δ ABC. If $\angle BOC$ = 80°,then $\angle BAC$ is
   a) 40°   b) 160°   c) 130°   d) 110°

vi)   O is the orthocentre of Δ ABC. If $\angle BAC$ = 40°,then $\angle BOC$ is
   a) 80°   b) 140°   c) 110°   d) 40°

vii)   O is the incentre of Δ ABC. If $\angle BOC$ = 116°,then measure of $\angle BAC$ is
   a) 48°   b) 26°   c) 52°   d) 50°

viii)   O is the circumcentre of Δ ABC. If $\angle ABC$ = 72°, $\angle ACB$ = 68°, then measure of $\angle OBC$ is
   a) 70°   b) 40°   c) 50°   d) 20°

ix)   O is the orthocentre of Δ ABC. If $\angle BOC$ = 100°,then measure of $\angle BAC$ is
   a) 40°   b) 50°   c) 70°   d) 80°

x)   The length of the side of an equilateral triangle is 6cm. Then its circumradius is
   a) 3 cm   b) √3 cm   c) 2√3 cm   d) 4 cm

xi)   The inradius of an equilateral triangle is what fraction of its height?
   a) $1/6^{th}$ b) $2/3^{rd}$ c) $1/3^{rd}$ d) $1/4^{th}$

xii)   The circumradius of an equilateral triangle is what fraction of its height
   a) 1/2   b) $2/3^{rd}$ c) $1/3^{rd}$ d) $1/4^{th}$

xiii)   In Δ ABC, the internal bisector of $\angle ABC$ and the external bisector of $\angle ACB$ intersect at O. If $\angle BOC$ = 40°, then the measure of $\angle BAC$ is
   a) 120°   b) 80°   c) 150°   d) 110°

xiv)   The point equidistant from the sides of a triangle is called _____
   a) Centroid   b) Incentre   c) Circumcentre   d) Orthocentre

xv)   The point equidistant from the vertices of a triangle is called _____
   a) Incentre   b) Orthocentre   c) Centroid   d) Circumcentre

-Chaitali Roy