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ST. LAWRENCE HIGH SCHOOL

A Christian Jesuit minority Institution

Subject: Mathematics **class-X** **Date:14.04.2020**

Answer key of Worksheet-7

Chapter: Trigonometry :concept of measurement of angles

Topic-Circular measure and sexagesimal measure of angles and their conversion

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Choose the correct alternative. 1x15=15

a)Sexagesimal measure of 1 radian is Ans ii) 57° 16'22"

b) Sexagesimal measure of $\frac{2\Pi}{3}$ radian is Ans i) 120°

c) Circular measure of the smallest angle of a triangle having the ratio of the angles as 2:5:3 is Ans ii) $\frac{\Pi}{5}$

d) Sexagesimal measure of complementary angle of 65° 35'25" is Ans i) 24°24' 35"

e)Circular measure of each angle of a pentagon is Ansii) $\frac{3\Pi}{5}$ iii) $\frac{2\Pi}{5}$

f) Circular measure of -150° is Ans i) $-\frac{5\Pi}{6}$

g) Circular measure of the third angle of a triangle having two other angles as 65° and $\frac{\Pi}{12}$ Ans i) $\frac{5\Pi}{9}$

h) Sexagesimal measure of supplementary angle of the angle 75°36'24" is Ans ii) 104° 23' 36"

i) Circular measure of each interior angle of a hexagon is Ans i) $\frac{2\Pi}{3}$

j) Circular measure of supplementary angle of $\frac{3\Pi}{8}$ is Ans ii) $\frac{5\Pi}{8}$

k) In a right angled triangle difference between the acute angles is $\frac{2\Pi}{5}$,sexagesimal measures of the angles are Ans i) 81° and 9°

l)In a quadrilateral having 3 interior angles as $\frac{\Pi}{3}, \frac{5\Pi}{6}$ and 90° circular measure of the fourth angle is Ans i) $\frac{\Pi}{3}$

m)In an isosceles triangle if the equal angles are 75° each,then circular measure of the third angle is Ans ii) $\frac{\Pi}{6}$

n) Circular measure of 72° is Ans iii) $\frac{2\Pi}{5}$

o)The circular measure the equal angles in an isosceles right angled triangle is Ans i) $\frac{\Pi}{4}$

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