



# ST. LAWRENCE HIGH SCHOOL



## A Christian Jesuit minority Institution

Subject: Mathematics class-X Date:27.02.2021

Answer key of Worksheet-11

Chapter:Trigonometry:concept of measurement of angles

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

Choose the correct alternative. 1x15=15

- a)  $\frac{\pi}{24}$  radian is equal to one of the following i)  $9\frac{1}{2}^\circ$  ii)  $7\frac{1}{2}^\circ$  iii)  $19^\circ$  iv) none of these
- b) Sexagesimal measure of  $\frac{2\pi}{3}$  radian is i)  $120^\circ$  ii)  $90^\circ$  iii)  $60^\circ$  iv) none of these
- c) Circular measure of the smallest angle of a triangle having the ratio of the angles as 1:2:3 is i)  $\frac{\pi}{10}$  radian ii)  $\frac{\pi}{6}$  radian iii)  $\frac{\pi}{2}$  radian iv) none of these
- d) Converting  $3156''$  in degree, minute, second we get is i)  $24^\circ 24' 35''$  ii)  $35^\circ 35''$  iii)  $52^\circ 36''$  iv) none of these
- e) Circular measure of each angle of a pentagon is i)  $\frac{3\pi}{10}$  ii)  $\frac{3\pi}{5}$  iii)  $\frac{2\pi}{5}$  iv) none of these
- f) Circular measure of  $-150^\circ$  is i)  $-\frac{5\pi}{6}$  ii)  $\frac{5\pi}{6}$  iii)  $\frac{2\pi}{3}$  iv) none of these
- g) Circular measure of the third angle of a triangle having two other angles as  $65^\circ$  and  $\frac{\pi}{12}$  i)  $\frac{5\pi}{9}$  ii)  $\frac{2\pi}{3}$  iii)  $\frac{5\pi}{7}$  iv) none of these
- h) Sexagesimal measure of supplementary angle of the angle  $57^\circ 47' 37''$  is i)  $104^\circ 36' 23''$  ii)  $104^\circ 23' 36''$  iii)  $122^\circ 12' 23''$  iv) none of these
- i) Circular measure of each interior angle of a hexagon is i)  $\frac{2\pi}{3}$  ii)  $\frac{3\pi}{4}$  iii)  $\frac{\pi}{3}$  iv) none of these
- j) Circular measure of supplementary angle of  $\frac{3\pi}{8}$  is i)  $\frac{3\pi}{5}$  ii)  $\frac{5\pi}{8}$  iii)  $\frac{3\pi}{8}$  iv) none of these
- k) In a right angled triangle difference between the acute angles is  $\frac{2\pi}{5}$ , sexagesimal measures of the angles are i)  $81^\circ$  and  $9^\circ$  ii)  $80^\circ$  and  $10^\circ$  iii)  $71^\circ$  and  $19^\circ$  iv) none of these
- l) In a quadrilateral having 3 interior angles as  $\frac{\pi}{3}$ ,  $\frac{5\pi}{6}$  and  $90^\circ$  circular measure of the fourth angle is i)  $\frac{\pi}{3}$  ii)  $\frac{2\pi}{3}$  iii)  $60^\circ$  iv) none of these
- m) In an isosceles triangle if the equal angles are  $75^\circ$  each, then circular measure of the third angle is i)  $\frac{\pi}{3}$  ii)  $\frac{\pi}{6}$  iii)  $\frac{\pi}{2}$  iv) none of these

- n) Circular measure of  $72^\circ$  is i)  $\frac{2\pi}{3}$  ii)  $\frac{2\pi}{7}$  **iii)  $\frac{2\pi}{5}$**  iv) none of these
- o) The circular measure of the equal angles in an isosceles right angled triangle is  
**i)  $\frac{\pi}{4}$**  ii)  $\frac{\pi}{3}$  iii)  $\frac{\pi}{6}$  iv) none of these

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