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ST. LAWRENCE HIGH SCHOOL

A Jesuit Christian Minority Institution

Subject: Mathematics **Class: X** **Date:7.04.2020**

Answer key of Worksheet 1

Chapter-Theorem related to cirCle

Topic-theorem on , If a line segment Passing through the centre is perpendicular on a chord that line segment bisects the chord

1. **Choose the correct alternative. 1x15=15**

a)The largest chord in a circle is
ans. i) diameter
b) In a circle radius is 13cm and there is a chord of the length 10 cm. Diatance between the centre and the chord is
ans i)12 cm
c)The distance of the centre of a circle having 17 cm radius from a chord is 8 cm. Length of the chord is
ans.ii) 30 cm
d)Ratio of 2 chords PQ and RS in a circle with centre O is 1:1. Then angle POQ: angle ROS is
ans.iii) 1:1
e) A circle with centre O has 5 cm radius. AB is a chord of 8 cm. Distance between O and AB is
ansi)3 cm
f)In a circle with centre O, AB and CD are 2 equal chords . angle AOB =60°, then angle COD is
ans. iii)60°
g) In a circle with centre O, AB and CD are 2 equal chords . Distance of AB from O is 4 cm. Distance of CD from O is
ansi) 4 cm
h) In a circle with centre O ,AB and CD equal and parallel chords . Length of the chord is 16 cm Radius of the circle is 10 cm .distance between 2 chords is
ans.i) 12 cm
i)A perpendicular bisector of a chord in a circle is
ans. i) passing through the centre
j) Number chords present in a circle
ans. iii) infinite
k)Circles having same centre but different radius are known as
ans. ii) concentric circles
l) Radius of 2 congruent circles are
ans.i) equal

m)In a circle having 10 cm radius there are 2 parallel chords having length of 16 cm and 12 cm respectively. Find the distance between 2 chords when the chords are placed on the same side of the centre.

Ans.i) 2 cm

n) In a circle having 10 cm radius there are 2 parallel chords having length of 16 cm and 12 cm respectively. Find the distance between 2 chords when they are placed on 2 different sides of the centre.

Ans. ii) 14 cm

o) All diameters in a circle are passing through

ans.i) centre

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