# INDIAN SCHOOL SOHAR <br> FORMATIVE ASSESSMENT- 3 <br> MATHEMATICS 

Date: 11-02-2015
Time: 40mnts
Class: IX
General Instructions:
All questions are compulsory. Section A comprises 3 questions of 1 mark each, Section B comprises 2 questions of 2 marks each, Section C comprises 3 questions of 3 marks each and Section D comprises 1 question of 4 marks.

## SECTION A

1. Find the value of $x$ for $y=0$ in the equation, $y=2 x+1$.
2. What is the equation of the $\mathrm{Y}-$ axis?
3. The length of a chord in a circle of diameter 10 cm is 6 cm . Find the distance of the chord from its centre.

## SECTION B

4. Determine the point on the graph of the linear equation $2 x+5 y=20$ whose abscissa is $\frac{5}{2}$ times its ordinate.
5. If the point $(2 k-3, k+2)$ lies on the graph of the equation $2 x+3 y+15=0$. Find " $k$ "?

## SET 2

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## SECTION A

1. What is the general form of a linear equation in two variables?
2. What is the equation of the X axis?
3. The length of a chord in a circle is 6 cm and its perpendicular distance from the centre is 4 cm Find the radius of the circle .

## SECTION B

4. Determine the point on the graph of the linear equation $2 x+5 y=19$ whose ordinate is $\frac{3}{2}$ times its abscissa.
5. If the point $(2 p-3, p+2)$ lies on the graph of the equation $2 x+3 y+15=0$.Find " $p$ "?

## SECTION C

6. Two circles of radii 5 cm and 3 cm intersect at two points and distance between their centers is 4 cm . Find the length of the common chord.
7. ABCD is a cyclic quadrilateral whose diagonals intersect at E . If $\angle \mathrm{DBC}=70^{\circ}$, $\angle B A C=30^{\circ}$, find $\angle B C D$. Further, if $A B=B C$, find $\angle E C D$.
8. Draw the graph of the linear equation $4 x+y=6$. At what points the graph of the equation cuts the X axis and Y axis.

## SECTION D

9. Prove that the angle subtended by an arc at the centre is double the angle subtended by it at any point on the remaining part of the circle.

## SECTION C

6. Two circles of radii 5 cm and 3 cm intersect at two points and distance between their centres is 4 cm .Find the length of the common chord.
7. PQRS is a cyclic quadrilateral whose diagonals intersect at E . If $\angle \mathrm{SQR}=70^{\circ}$, $\angle \mathrm{QPR}=30^{\circ}$, find $\angle \mathrm{QRS}$. Further, if $\mathrm{PQ}=\mathrm{QR}$, find $\angle \mathrm{ERS}$.
8. Draw the graph of the linear equation $2 x+y=4$. At what points the graph of the equation cuts the X axis and Y axis.

## SECTION D

9. Prove that the angle subtended by an arc at the centre is double the angle subtended by it at any point on the remaining part of the circle.
