# INDIAN SCHOOL SOHAR FORMATIVE ASSESSMENT I1 <br> Subject : Mathematics 

Class: IX
Date: 28.08.2013

SET II
Marks: 25
Time: 45 minutes

## General Instructions:

- All questions are compulsory
- The question paper consists of 11 questions divided into 4 sections A,B,C and D. Section-A comprises of 3 questions of 1 mark each, Section-B comprises of 4 questions of 2 marks each, Section-C comprises of 2 questions of 3 marks each and Section-D comprises of 2 questions of 4 marks each.
- Question numbers 1 to 3 in section-A are multiple choice questions where you are to select one correct option out of the given four.


## Section - A

1 Point $(5,0)$ lies :
a) in I quadrant
b) on $x$-axis
c) on y-axis
d) in IV quadrant

2 Euclid stated that if equals are subtracted from equals, the remainders are equals in the form of :
a) an axiom
b) a definition
c) a postulate
d) a proof

3 If two interior angles on the same side of a transversal intersecting two parallel lines are in the ratio $2: 3$, then the larger of two angles is :
a) $72^{\circ}$
b) $108^{\circ}$
c) $54^{\circ}$
d) $36^{\circ}$

## Section - B

4. Prove that the sum of the angles of a triangle is $180^{\circ}$
5. A point lies on $y$-axis at a distance of 8 units from $x$-axis. What are its coordinates? What will be the coordinates of a point if it lies on $x$ - axis at a distance of $(-8)$ units from y-axis?

6 In the figure, if $P S=R Q$, then prove that $P R=S Q$

7 In the figure, find the value of x .


Section - C
8. Plot the points $(2,3),(-2,3),(-2,-3)$ and $(2,-3)$ on a graph. Join these points. Name the figure obtained and find the area of the figure so obtained.

9 In the figure, $\triangle \mathrm{ABC}$ is an equilateral triangle with coordinates of vertices B and C as $(-4,0)$ and $(4,0)$ respectively. Find the coordinates of the point $A$.


## Section - D

10 The sides AB and AC of $\triangle \mathrm{ABC}$ are produced to points E and D respectively. If bisectors BO and CO of $\angle \mathrm{CBE}$ and $\angle \mathrm{BCD}$ respectively meet at point O , then prove that $\angle \mathrm{BOC}=90^{\circ}-\frac{1}{2} \angle \mathrm{~A}$

11 If two parallel lines are intersected by a transversal, then prove that the bisectors of the interior angles form a rectangle.

