



INDIAN SCHOOL SOHAR
PERIODIC TEST I (2023 - 24)
MATHEMATICS

SET I

CLASS: IX
DATE: 22/05/23

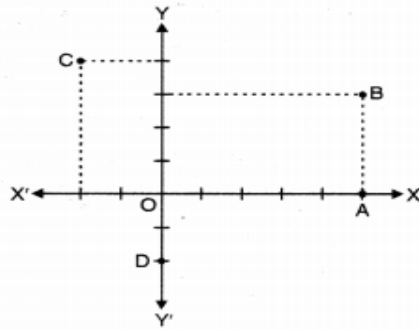
MAX. MARKS: 20
TIME: 40MINUTES

General Instructions:

1. This Question paper contains - four sections A, B, C and D. Each section is compulsory.
 However, there are internal choices in some questions.
2. Section A has 4 MCQs and 1 Assertion-Reason based questions of 1 mark each.
3. Section B has 2 Very Short Answer (VSA)-type questions of 2 marks each.
4. Section C has 2 Short Answer (SA)-type questions of 3 marks each.
5. Section D has 1 Long Answer (LA)-type question of 5 mark.

SECTION – A (Multiple Choice Questions) Each question carries 1 mark	
1.	Abscissa of a point is positive in A) I and II quadrants B) I and IV quadrants C) I quadrant only D) II quadrant only
2.	The value of $(\sqrt{10} + \sqrt{5})(\sqrt{10} - \sqrt{5})$ A) 5 B) -4 C) 1 D) 4
3.	Amit's school is 5 km to the west and 3 km north of his house. He represented his house and his school on a coordinate grid, with his house located at the origin, and the positive x- axis represent the direction that is east of his house. If 1 unit on the coordinated grid represents 1 km, what will be the coordinate of his school? A (3, 5) B) (5, 3) C) (-5, 3) D) (-3, 5)
4.	Ordinate of all points on the x-axis is A) -1 B) 1 C) any number D) 0
5.	Assertion: Sum of two irrational numbers $2 + \sqrt{3}$ and $4 + \sqrt{3}$ is irrational number. Reason: Sum of two irrational numbers is always an irrational number. A) Both assertion and reason are true and reason is the correct explanation of assertion. B) Both assertion and reason are true but reason is not the correct explanation of assertion. C) Assertion is true but reason is false. D) Assertion is false but reason is true
SECTION – B [This section comprises of very short answer type questions (VSA) of 2 marks each]	
6.	If $x = 1 - \sqrt{2}$, find the value of $(x + \frac{1}{x})^2$ <div style="text-align: center;">OR</div> Find the value of $\frac{5}{(256)^{\frac{-1}{4}}} + \frac{2}{(243)^{\frac{-2}{5}}}$

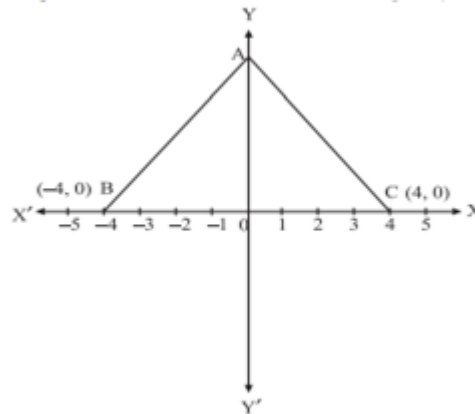
7. Write the coordinates of A, B, C and D from the figure given below.



SECTION – C

[This section comprises of short answer type questions (SA) of 3 marks each]

8. In the figure, $\triangle ABC$ 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.



- 9.. Represent $\sqrt{29}$ on the number line.
OR
Express $0.6 + 0.\bar{7} + 0.4\bar{7}$ in the form $\frac{p}{q}$, where p and q are integers and $q \neq 0$

SECTION – D

[This section comprises of long answer type question (LA) of 5 mark]

- 10 Simplify by rationalizing the denominator: $\frac{4}{2 + \sqrt{3} + \sqrt{7}}$
OR
If $a = \frac{\sqrt{2} + 1}{\sqrt{2} - 1}$ and $b = \frac{\sqrt{2} - 1}{\sqrt{2} + 1}$ then find the value of $a^2 + b^2 - 3ab$



INDIAN SCHOOL SOHAR
PERIODIC TEST I (2023-24)
MATHEMATICS

SET II

CLASS: IX
DATE: 22/05/23

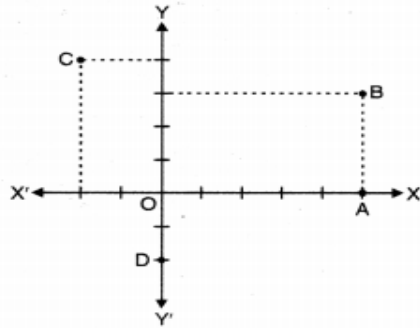
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General Instructions:

1. This Question paper contains - four sections A, B, C and D. Each section is compulsory. However, there are internal choices in some questions.
2. Section A has 4 MCQs and 1 Assertion-Reason based questions of 1 mark each.
3. Section B has 2 Very Short Answer (VSA)-type questions of 2 marks each.
4. Section C has 2 Short Answer (SA)-type questions of 3 marks each.
5. Section D has 1 Long Answer (LA)-type question of 5 mark.

SECTION – A (Multiple Choice Questions) Each question carries 1 mark	
1.	The value of $(\sqrt{11} + \sqrt{7})(\sqrt{11} - \sqrt{7})$. A) -18 B) -4 C) 18 D) 4
2.	Ordinate of all points on the x-axis is A) -1 B) 0 C) 1 D) any number
3.	If R(a, b) lies in III quadrant then which of the following is true about a and b? A) $a > 0, b > 0$ B) $a > 0, b < 0$ C) $a < 0, b > 0$ D) $a < 0, b < 0$
4.	Amit's school is 5 km to the west and 3 km north of his house. He represented his house and his school on a coordinate grid, with his house located at the origin, and the positive x- axis represent the direction that is east of his house. If 1 unit on the coordinated grid represents 1 km, what will be the coordinate of his school? A) (5, 3) B) (-5, 3) C) (3, 5) D) (-3, 5)
5.	Assertion: $10 + \sqrt{5}$ is an irrational number. Reason: Sum of a rational and an irrational number is always an irrational number. A) Both assertion and reason are true and reason is the correct explanation of assertion. B) Both assertion and reason are true but reason is not the correct explanation of assertion. C) Assertion is true but reason is false. D) Assertion is false but reason is true.
SECTION – B [This section comprises of very short answer type questions (VSA) of 2 marks each]	
6.	If $x = 1 + \sqrt{2}$, find the value of $(x - \frac{1}{x})^3$ OR Find the value of $\frac{1}{(256)^{\frac{-3}{4}}} + \frac{2}{(243)^{\frac{-1}{5}}}$

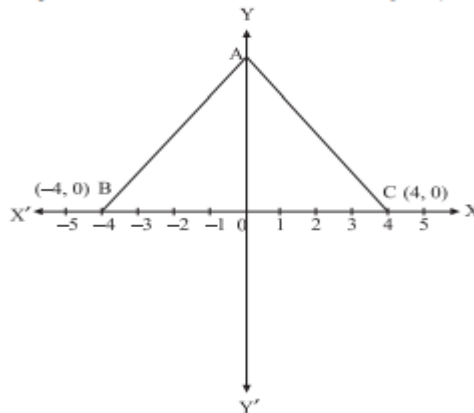
7.	Write the coordinates of A, B, C and D from the figure given below.
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SECTION – C
[This section comprises of short answer type questions (SA) of 3 marks each]

8.	Represent $\sqrt{34}$ on the number line. OR Express $0.6 + 0.\bar{7} + 0.4\bar{7}$ in the form $\frac{p}{q}$, where p and q are integers and $q \neq 0$.
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9.	In the figure, ΔABC 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.
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SECTION – D
[This section comprises of long answer type question (LA) of 5 mark]

10	If $a = \frac{\sqrt{2} + 1}{\sqrt{2} - 1}$ and $b = \frac{\sqrt{2} - 1}{\sqrt{2} + 1}$ then find the value of $a^2 + b^2 - 4ab$ OR Simplify by rationalizing the denominator: $\frac{4}{2 + \sqrt{3} + \sqrt{7}}$
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