

Adabistan-e-Soophia

Code: 1053

Test No.: 4

Paper: Mathematics

Name: _____

Class: IX Sec: _____

Syllabus: Ch. 4, 8 13, 14

Question Numbers	1	2	3	4		Total	Grade	%age
Maximum Marks	08	16	08	08		40		
Marks Obtained								

Remarks: _____

Time Allowed: 15 mins

(Objective Type)

Max. Marks: 08

	A	B	C	D	Write Correct option		A	B	C	D	Write Correct option		A	B	C	D	Write Correct option		A	B	C	D	Write Correct option
1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		13	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		14	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		11	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		15	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		12	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		16	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Note: Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink. Cutting or filling two or more times result in zero mark in that question.

Q.1	Questions	(A)	(B)	(C)	(D)
1.	$(3 + \sqrt{2})(3 - \sqrt{2}) = \underline{\hspace{2cm}}$	7	-7	-1	1
2.	$\frac{a^2 - b^2}{a + b} = \underline{\hspace{2cm}}$	$(a - b)^2$	$(a + b)^2$	$a + b$	$a - b$
3.	The degree of polynomial $4x^4 + 2x^2y$ is $\underline{\hspace{2cm}}$.	1	2	3	4

4.	If $y = 2x + 1$, $x = 2$ then y is:	2	3	4	5
5.	Point $(2, -3)$ lies in quadrant:	I	II	III	IV
6.	The distance between a line and a point on it is:	perpendicular	parallel	zero	1 unit
7.	In a right-angled triangle greater angle is of _____:	120°	90°	60°	45°
8.	Symbol used for similarity is:	\cong	\sim	\approx	$=$
9.	A line segment has only one:	mid-point	end point	diameter	measurement
10.	Conjugate of surd $a + \sqrt{b}$ is:	$-a + \sqrt{b}$	$a - \sqrt{b}$	$\sqrt{a} + \sqrt{b}$	$\sqrt{a} - \sqrt{b}$
11.	$a^3 + b^3 =$	$(a - b)(a^2 + ab + b^2)$	$(a + b)(a^2 - ab + b^2)$	$(a - b)(a^2 - ab + b^2)$	$(a - b)(a^2 + ab - b^2)$
12.	$\frac{1}{a-b} - \frac{1}{a+b} =$	$\frac{2a}{a^2 - b^2}$	$\frac{2b}{a^2 - b^2}$	$\frac{-2a}{a^2 - b^2}$	$\frac{-2b}{a^2 - b^2}$
13.	$(\sqrt{a} + \sqrt{b})(\sqrt{a} - \sqrt{b}) =$	$a^2 + b^2$	$a^2 - b^2$	$a - b$	$a + b$
14.	Which ordered pair satisfies the equation $y = 2x$:	$(1, 2)$	$(2, 1)$	$(2, 2)$	$(0, 1)$
15.	Sum of two sides of a triangle is _____ the third.	equal to	less than	greater than	less or equal
16.	Ratio has no _____.	value	symbol	unit	both (A) & (B)

(Section - I)

2. Attempt the following questions.

(8×2=16)

- i. Perform the indicated operation and simplify $\frac{x^6-y^6}{x^2-y^2} \div (x^4 + x^2y^2 + y^4)$
- ii. If $x - y = 4$ and $xy = 21$, then find the value of $x^3 - y^3$.
- iii. Simplify $(\sqrt{x} + \sqrt{y})(\sqrt{x} - \sqrt{y})(x + y)(x^2 + y^2)$
- iv. If $x = 2 + \sqrt{3}$, then find the value of $x - \frac{1}{x}$.
- v. Draw the graph of $y = 4x$
- vi. Define cartesian plane.
- vii. If 13 cm, 12 cm and 5cm are the lengths of a triangle. Verify that the difference of measure of two sides of a triangle is less than the measure of the third side.
- viii. Define congruent triangles.

(Section - II)

Note: Solve the following questions.

(8×2=16)

3. (a) Simplify: $\frac{\sqrt{a^2+2}+\sqrt{a^2-2}}{\sqrt{a^2+2}-\sqrt{a^2-2}}$ (4)

(b) If $x + y + z = 12$ and $x^2 + y^2 + z^2 = 64$ then find the value of $xy + yz + zx$. (4)

4. (a) Solve the following pair of equations in x and y graphically. (4)

$$x + y = 0 \text{ and } 2x - y + 3 = 0$$

(b) In $\triangle LMN$ shown in the figure. \overline{LA} bisects $\angle L$. If $m\overline{LN} = 4$, $m\overline{LM} = 6$, $m\overline{MN} = 8$, then find $m\overline{MA}$ and $m\overline{AN}$. (4)

