

Adabistan-e-Soophia

Code: 1052

Test No: 3

Paper: Mathematics

Name: _____

Class: IX Sec: _____

Syllabus: Ch. 3,7,12 (Theorem 4)

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

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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.	The logarithm of any number to itself as base is _____.	1	0	- 1	10
2.	The logarithm of unity to any base is _____.	1	10	<i>e</i>	0
3.	$\log_b a \times \log_c b$ can be written as _____.	$\log_a c$	$\log_a a$	$\log_a b$	$\log_b c$

Q.1	Questions	(A)	(B)	(C)	(D)
4.	Which of the following is the solution of inequality $3 - 4x \leq 11$? _____	-8	-2	$\frac{-14}{4}$	2
5.	$x = \underline{\hspace{2cm}}$ is a solution of inequality $-2 < x < \frac{3}{2}$	-5	3	0	$\frac{3}{2}$
6.	If X is no larger than 10, then _____	$x \geq 8$	$x \leq 10$	$x < 10$	$x > 10$
7.	$x = 0$ is a solution of inequality _____	$x > 0$	$3x + 5 < 0$	$x + 2 < 0$	$x - 2 < 0$
8.	Bisection means to divided into _____ equal parts.	three	two	four	five
9.	The right bisectors of the sides of a triangle are _____.	congruent	not congruent	concurrent	non concurrent
10.	$\log_y x$ will be equal to _____.	$\frac{\log_z x}{\log_y z}$	$\frac{\log_x z}{\log_y z}$	$\frac{\log_z x}{\log_z y}$	$\frac{\log_z y}{\log_z x}$
11.	If $a^x = n$, then _____.	$a = \log_x n$	$x = \log_n a$	$x = \log_a n$	$a = \log_n x$
12.	$\log m - \log n$ is same as	$\log \frac{m}{n}$	$\log(m - n)$	$\frac{\log m}{\log n}$	$\log \frac{n}{m}$
13.	$\log e = \underline{\hspace{2cm}}$ where $e \approx 2.718$	0	0.4343	∞	1
14.	$\log_a a =$	0	-1	1	None of these
15.	Solution of $\frac{3x-1}{3} - \frac{2x}{x-1} = x$ is $x = \underline{\hspace{2cm}}$	$\frac{-1}{7}$	$\frac{1}{5}$	$\frac{1}{7}$	$\frac{2}{7}$
16.	Solve equation $\sqrt{2x-3} - 7 = 0$ is $y = \underline{\hspace{2cm}}$	$y = 26$	$y = 24$	$y = -26$	$y = -24$

(Section - I)

2. Attempt the following questions.

(8×2=16)

i. Express number in ordinary notation.

$$9.018 \times 10^{-6}$$

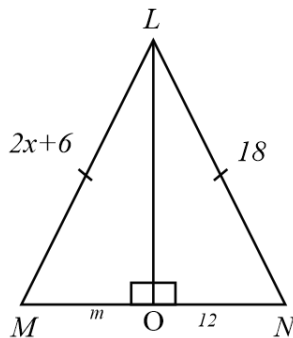
ii. If $\log 31.09 = 1.4926$. Find value $\log 0.3109$.iii. Find the value of x . $\log_3 x = 4$ iv. Write into sum or difference: $\log \frac{25 \times 47}{29}$ v. Solve the equation $\frac{2}{3x+6} = \frac{1}{6} - \frac{1}{2x+4}$ $x \neq -2$

vi. Solv for X.

$$\left| \frac{3 - 5x}{4} \right| - \frac{1}{3} = \frac{2}{3}$$

vii. Solve inequality.

$$3(2x + 1) - 2(2x + 5) < 5(3x - 2)$$

viii. In the given congruent triangle LMO and LNO. Find the unknowns x and m .

(Section - II)

Note: Solve the following questions.

(8×2=16)

3. (a) Find the value of: $\frac{0.678 \times 9.01}{0.0234}$ (4)(b) Prove that $\log_a(m^n) = n \log_a m$ (4)

4. Prove that any point on the bisector of an angle is equidistant from its arms. (8)