

Adabistan-e-Soophia

Code: 1051

Test No: 2

Paper: Mathematics

Name: _____

Class: IX Sec: _____

Syllabus: Ch. 2, 11, 12 (Theorem)

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.	$\left(\frac{25}{16}\right)^{\frac{1}{2}} = \underline{\hspace{2cm}}$.	$\frac{5}{4}$	$\frac{4}{5}$	$-\frac{5}{4}$	$-\frac{4}{5}$
2.	The value of i^9 is _____.	1	-1	i	$-i$
3.	Every real number is _____.	a positive integer	a rational number	a negative integer	a complex number

Q.1	Questions	(A)	(B)	(C)	(D)
4.	In a parallelogram opposite sides are _____.	parallel	equal	bisect	none of these
5.	The medians of a triangle are _____.	congruent	concurrent	equal	none of these
6.	Real part of $2ab(i + i^2)$ is:	$2ab$	$-2ab$	$2abi$	$-2abi$
7.	The conjugate of $5 + 4i$ is ____.	$-5 + 4i$	$-5 - 4i$	$5 - 4i$	$5 + 4i$
8.	Write $\sqrt[7]{x}$ in exponential form _____.	x	x^7	$x^{\frac{1}{7}}$	$x^{\frac{7}{2}}$
9.	In $\sqrt[3]{35}$ the radicand is _____	3	$\frac{1}{3}$	35	none of these
10.	Write $4^{\frac{2}{3}}$ with radical sign _____	$\sqrt[3]{4^2}$	$\sqrt{4^3}$	$\sqrt[2]{4^3}$	$\sqrt{4^6}$
11.	The diagonals of a parallelogram _____ each other.	cut	bisect	trisect	intersect
12.	Which of the following set have the closure property w.r.t addition _____?	$\{0\}$	$\{0, -1\}$	$\{0, 1\}$	$\{1, \sqrt{2}\}$
13.	If $z < 0$ then $x < y \Rightarrow$ _____.	$xz < yz$	$xz > yz$	$xz = yz$	none of these
14.	Imaginary part of $-i(3i + 2)$ is:	-2	2	3	-3
15.	$\bar{\bar{z}} =$ _____	\bar{z}	zi	z	z^2
16.	The symbol \forall means _____.	for equal	for inverse	for all	none of these

(Section - I)

2. Attempt the following questions.

(8x2=16)

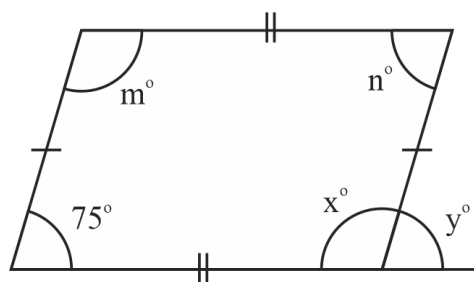
i. Express in $a + bi$ if $(-7 + 3i)(-3 + 2i)$

ii. Evaluate: $(-i)^8$

iii. Write the conjugate of $-i$

iv. Simplify: $\sqrt[3]{-\frac{8}{27}}$

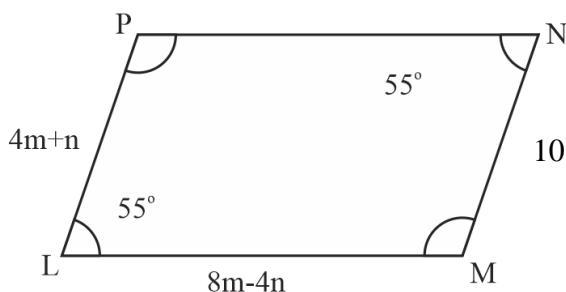
v. Find the value of unknown.



vi. Define a complex number.

vii. What is radical and radicands?

viii. Find the values of unknown.



(Section - II)

Note: Solve the following questions.

(8x2=16)

3. (a) Simplify: $\frac{(81)^n \cdot 3^5 - (3)^{4n-1} (243)}{(9^{2n})(3^3)}$ (4)

(b) If $z = 2 + 3i$ then show that $\frac{1}{2i}(z - \bar{z})$ is the imaginary part of z . (4)

4. Prove that if any point on the right bisector of a line segment is equidistant from its end points. (8)