ZIAUDDIN UNIVERSITY
EXAMINATION BOARD

Total Time 3 hours
Total Marks: 75

Class: IX
Time Allowed: 20 minutes
Q1:

MODEL PAPER EXAMINATION 2025
SUBJECT: MATHEMATICS
(SECTION "A")

Marks: 15

Note: Attempt **ALL** questions from section 'A'. Each question carries **ONE** mark.

1 The solution set of the line x=2 and x=5 is:

A. {(2,5)} B {2,5} C. {(0,5)} D. {}

2 If perpendicular distance between two lines is the same, the lines are _____ to each other.

A. Perpendicular B Parallel C. Intersecting D. None

3 In 2i(3-1), the real part is:

A. -1 B 2 C. -2 D. +1

4 If $\log_{10} x$=2, then x=_____

A. 200 B 10000 C. 1000 D. 100

5 If $x + y = 10$ and $x - y = 6$,then $\frac{x}{y}$ =_____

A. 4 B. 8 C. 2 D. 1

6 The additive inverse of$\sqrt{5}$ is:

A. $-\sqrt{5}$ B. $\frac{1}{\sqrt{5}}$ C. -5 D. 5

7 The scientific notation of 0.05076 is:

A. $50.76x10^2$ B. $50.76x10^{-2}$ C. $5.076X10^{-2}$ D. $5.076x10^2$

8 $x^2 - 15x + 56 =$

A. (x-7)(x+8) B. (x+7)(x-8) C. (x-7)(x-8) D. (x+7)(x+8)

9 In (5,-1) , *x* co-ordinate is _____.

A. 5 B. 1 C. -1 D. -5

10 Degree of quadratic equation is _____

A. 1 B. 2 C. 3 D. 4

11 In a right-angled triangle, the line opposite to the right angle is called _____.

A. Base B. Perpendicular C. Parallel D. Hypotenuse

12 $\sqrt{7}$ is an example of _____.

A. Trinomial Surd B. Binomial Surd C. Monomial Surd D. Conjugate Surd

13 In $x \geq 4$, *x* is _____ 4

A. Greater than B. Equal to C. Less than D. Greater than or equal to

14 The sum of all angles of a triangle is _____.

A. 90° B. 180° C. 270° D. 360°

15 The medians of a triangle are _____

A. Concurrent B. Collinear C. Congruent D. Parllel

END OF SECTION A

ZIAUDDIN UNIVERSITY
EXAMINATION BOARD

Total Time 3 hours
Total Marks: 75

Class: IX **MODEL PAPER EXAMINATION 2025**
Time: 2 hours 40 minutes **SUBJECT: MATHEMATICS (SECTION "B" AND SECTION "C")** **Total Marks 60**
SECTION "B" (SHORT ANSWER QUESTIONS) **30 Marks**

Q2: Answer any **SIX** questions from this section.

i. Simplify: $\frac{\sqrt[3]{(125)^2 \times 8}}{\sqrt{(2 \times 32)^2}}$

ii. Find the value of K, if the polynomial $x^3 + Kx^2 + 3x - 4$ leaves a remainder "-2" when divided by $(x + 2)$

iii. Factorise: $(x^2 + 5x + 4)(x^2 + 5x + 6) - 120$

iv. Solve by using logarithm: $\frac{(2391 \times 30.72)}{23.34}$

v. Find the factors by using factor theorem : x^3+x^2-x-1

vi. Simplify: $\frac{2}{x+2} - \frac{x-4}{2x^2+x-6}$

vii. If two opposite sides of a quadrilateral are congruent and parallel, prove that it is a parallelogram.

viii. Find the solution set of $|5x - 3| - 2 = 3$

ix. Show that A (3,4), B (1,2) and C (0,4) form a scalene triangle.

x. Find the solution set $|2x + 3| < x + 2$,V y$\in N$ and represent number line.

xi. Solve the quadratic equation $2x^2 + 8x - 1 = 0$ by completing square method.

xii. If $z_1 = -4 + 6i$ and $z_2 = 2\frac{1}{2} - 2i$, verify that $\overline{z_1 - z_2} = \overline{z_1} - \overline{z_2}$

xiii. Construct a ΔSTU in which $m < T = 60°$, $m < U = 30°$ and $m\overline{TU} = 7cm$.

SECTION "C" (DETAILED ANSWER QUESTIONS) **30 Marks**

Q3: Attempt any **THREE (3)** Questions. from this section.

i. Factorize any two:

a) $x^2 + 2xy + y^2) - 9z^4$ c) $a^6 + 1$

b) $a^8 + a^4 + 1$ d) $3x^2 - 38xy - 13y^2$

ii. Solve by graphical method: $3x + 2 = 5y$, $3x + 5y = 8$

iii. Show that $A(2,1), B(5,1)$ and $C(2,6)$ are the vertices of a right-angled triangle.

iv. Using distance formula, find the perimeter of the triangle formed by the points $A(0,0), B(4,0)$ and $C(2,2\sqrt{3})$.

v. The line segment joining the mid-points of two sides of a triangle, is parallel to the third side and it is equal to one half of its length. Prove it

END OF PAPER