ZIAUDDIN UNIVERSITY
EXAMINATION BOARD

Total Time 3 hours
Total Marks: 75

Class: IX
Time Allowed: 20 minutes
Q1:

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

Marks: 15

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

1. The set of {0, 1} has closure property with respect to _____.

   A. Addition B. Subtraction C. Multiplication D. Division

2. The characteristic of log 783.23 is _____.

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

3. A sequence of numbers in which each term is obtained by multiplying the previous term by a fixed constant is called _____.

   A. Geometric sequence B. Arithmetic sequence
   C. Mean sequence D. Mode sequence

4. 12_5 _ 3_5 = _____.

   A. 4_5 B. 9_5 C. 11_5 D. 15

5. The exponential form of $\log_5 125 = 3$ is _____.

   A. $5^3 = 125$ B. $3^5 = 125$ C. $\log 125 = 5^3$ D. $\log 125 = 3^5$

6. The multiplicative inverse of $\frac{1}{x}$ is = _____.

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

7. $30\ a^3\ b^3 \div 5\ a^2\ b$ = _____.

   A. $6\ a^2\ b^2$ B. $6\ a^2\ b$ C. $6\ a\ b^2$ D. $6\ a^5\ b^4$

8. $1_2 + 1_2 + 1_2 + 1_2$ = _____.

   A. 1111_2 B. 100_2 C. 101_2 D. 110_2

9. When the standard deviation of a dataset is 5, it means that the _____.

   A. Average value of the data is 5
   B. Maximum value of the data is 5
   C. Most of the data points are within 5 units of the mean
   D. Most of the data points are more than 5 units away from the mean

10. If the nth term of a geometric sequence is 48 and the common ratio is 2, then the (n-1)th term is _____.

    A. 16 B. 24 C. 32 D. 40

11. The formula of Arithmetic Mean is _____.

    A. Σx B. Σfx C. Σ f D. $\frac{\Sigma fx}{n}$

12. If the standard deviation of a dataset is 4, then its variance will be _____.

    A. 2 B. 6 C. 8 D. 16

13. 25 % of 68 is _____.

    A. 15 B. 17 C. 19 D. 21

14. If Selling price = Cost price of an item, then there will be _____ in the deal.

    A. Profit B. Loss C. No profit no loss D. High profit

15. $\sqrt{36} + \sqrt[3]{64}$ = _____.

    A. 10 B. 14 C. 36 D. $\sqrt{100}$

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: GENERAL MATHEMATICS (SECTION "B" AND SECTION "C")** **Total Marks 60**

SECTION "B" (SHORT ANSWER QUESTIONS) **30 Marks**

Note: Attempt any **SIX** questions from Section 'B'. Each question carries **FIVE** marks.

Q.2 Simplify: $(\frac{3}{4})^3 \div 81$

Q.3 If the first term of Geometric progression is 20 and the common ratio is 4. Find the 5^{th} term.

Q.4 If U= {2, 4, 6, 8, 10} and A= {4, 6, 8}, show the Complement of Set A with the help of a Venn Diagram.

Q.5 Identify the Domain and Range of a function with the help of an example.

Q.6 Six builders can build 10 houses in 30 months. How long would it take 18 builders to build the same number of houses?

Q.7 Find the 10^{th} term of an arithmetic sequence where the first term is 5 and the common difference is 3.

Q.8 If A = {1, 2} and B = {3, 4, 5}, find the Cartesian Product of set A and set B and also identify a binary relation from their product.

Q.9 Find Geometric Mean of 2, 6, 9, 5 and 12.

Q.10 Haji Muhammad Ali leaves an inheritance of Rs. 5,500,000, along with one widow, two sons, and one daughter. Calculate the share for each according to Islamic law.

Q.11 State the Associative Laws for Union and Intersection of Sets

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

Note: Attempt any **THREE** questions from Section 'C'. Each question carries **TEN** marks.

Q.12 Solve with the help of the logarithmic formula: $(12.3 \times 6.78)^2$

Q.13 I was advised by my physician to walk every day in the morning as my daily exercise. On my first day, I walked 40 m. On the second and third day, I walked 60 m and 80 m respectively. What is the distance I walked on the 10^{th} day if I continue the same pattern in my daily walk?

Q.14 Let set P = {1, 2, 3} and set Q = {7, 8, 9, 10}be defined by the function f = {(1, 7), (2, 9), (3, 8)}. Show this function through the arrow diagram and also identify the name of the function.

Q.15 Calculate the variance and standard deviation of the data: 7, 2, 5, 1, 8, 3.

Q.16 The marks obtained by 26 students of class X in English subject paper consisting of 100 marks are presented in the table below. Find the Mean marks obtained by the students. Use Direct Method.

Marks obtained	10	20	36	40	50	56	60	70	72	80	88
No. of students	1	1	3	4	3	2	4	4	1	1	2

END OF PAPER