THE LAIDLAW MEMORIAL SCHOOL AND JUNIOR COLLEGE, KETTI
ENTRANCE EXAMINATION
SUBJECT: MATHEMATICS

CLASS	**: IX**	**DATE**	**: / /2021**
READING TIME	**: 5 Mins**	**TOTAL MARKS**	**: 25**
WRITING TIME	**: 1 HOUR**	**NO. OF PAGES**	**: 02**

SECTION A

Choose the correct answer   **5 X 1 = 5**

1) The square root of 784 is equal to
   - a. 28
   - b. 32
   - c. 26
   - d. 34   [1]

2) The unit digit of the cube of 472 is
   - a. 2
   - b. 4
   - c. 6
   - d. 8   [1]

3) A U A' = ?
   - a. φ
   - b. ξ
   - c. A
   - d. A'   [1]

4) If 2 kg sugar costs Rs.45, the cost of 5 kg sugar is equal to
   - a. Rs.100
   - b. Rs.125
   - c. Rs.115.50
   - d. Rs.112.50   [1]

5) The co-efficient of x^2 of the term $-5x^3y$ is
   - a. -5y
   - b. -5xy
   - c. 5xy
   - d. 5y   [1]

SECTION B

Attempt the following   5 X 1 = 5

1. $If\ x + \frac{1}{x} = 2, what\ is\ the\ value\ of\ x^2 + \frac{1}{x^2}$?   [1]

2. Three more than twice a number x is equal to 4. Convert this statement into mathematical equation. [1]
3. If two adjacent sides of a rectangle are equal, then it is called a ……………… [1]
4. Perimeter of a square whose side is 6 cm is equal to …………. [1]
5. A die is rolled once. Find the probability of getting an even number. [1]

SECTION C

Attempt any five of the following   5 X 3 = 15

1. In a class of 56 students, the number of boys is $\frac{2}{5}$ of the number of girls. Find the number of boys and girls. [3]
2. Is 2352 a perfect square? If not, find the smallest multiple of 2352 which is a perfect square. Find the square root of the new number. [3]
3. A person bought a camera for Rs.1280. Find the selling price if it is sold at a profit of 15%. [3]
4. Using the identity [3]
   (i) $x^2 - y^2 = (x + y)(x - y)$, $find\ the\ value\ of\ 53^2 - 47^2$
   (ii) $(a + b)^2 = a^2 + b^2 + 2ab$, $find\ the\ value\ of\ 105^2$
   (iii) $(x + a)(x + b) = x^2 + (a + b)x + ab$, $find\ the\ product\ of$
              $(x + 7)(x + 3)$
5. A person went to a bank to withdraw (receive) Rs.2,00,000. He asked the casher to give Rs.500 and Rs.2000 currency notes in return. She got 250 currency notes in all. Find the number of each kind of currency notes. [3]
6. The length and breadth of a rectangular field are in the ratio 9 : 5. If the are of the field is 14580 square metre, find the actual length and breadth of the field. [3]

CLASS: IX (9)   **DATE:**
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a. **<u>Transformation of Sentences</u>** [5]
   1. She was so angry that she was unable to control her tears.
   [Begin: She was too…]
   2. Raju said, "I will never be able to complete the work on time."
   [Begin: Raju told…]
   3. As soon as I stepped out of the house, I noticed that the weather had changed.
   [Begin: No sooner…]
   4. He will never understand the consequences of lying.
   [Begin: The consequences…]
   5. Although the ambulance arrived immediately, they could not save John.
   [Begin: Despite…]

b. **<u>Join the sentences using subordinating conjunctions.</u>** [3]
   1. He started late. He arrived on time.
   2. Sonia left the room. She could not control her tears.
   3. You need to work hard. You will achieve great heights.

c **<u>Fill in the correct forms of the verbs given in brackets:</u>** [2]
   Vinay _____(want) to compete in a marathon but he _____ (think) that he did not
   have the stamina. He _____ (sit) around all day _____ (sulk) without even trying.

d **Write an original story in about 150 – 200 words beginning "I wondered how it had come to this…."** [10]

e **Your uncle has gifted you a bicycle for your birthday, write a letter thanking him**. (Use the traditional method.) [5]