The City School

North Nazimabad Boys Campus

**Topic: Mixed Concept (Paper I)**

**Mr. Mohsin Zaki**

**Subject: Mathematics**

**Grade: 09 S- N**

Q1: Evaluate:

a)

b) 0.3 × 2.9

Q2: Given that 4(9-3𝑥) ≤ 11/2, find the smallest possible value of if 𝑥 is an integer.

Q3: The perimeter of a rectangle is given by P=2(B+L),

Find L when B = 6 cm and P = 42 cm.

Make B as the subject of the formula

Q4: Solve the following equations by factorization.

a *x*2-15*x -*54=0 b.2*x*2-7*x*-9=0

c *x*2-12*x+*32=0 d.2*x*2+13*x* +6=0

Q5: The area of a rectangle is 92cm2. If the length of rectangle is 4cm longer than the width, find the width of rectangle.

Q6: The base of a triangle is 4cm more than the altitude. If the area of triangle is 49cm2, calculate the altitude of triangle, giving your answer correct to two decimal places.

Q7: The table below shows the number of a popular magazine sold to customer in different shops in the month of April

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Number of magazine sold | 70-74 | 75-79 | 80-84 | 85-89 | 90-94 | 95-99 | 100-104 |
| Frequency | 4 | 11 | 15 | 24 | 18 | 9 | 3 |

Estimate the mean of the distribution.

Q8: The following table shows the frequency distribution of the masses, in kg, of 21 members of a sports club.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Mass (kg) | 53-55 | 55-57 | 57-59 | 59-61 | 61-63 |
| Frequency | 2 | 6 | 8 | 4 | 1 |

Draw the histogram of this distribution.

Q9: The table below shows the height of 65 plants.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Height of plants | 0 ≤ h ≤ 20 | 20 ≤ h ≤ 30 | 30 ≤ h ≤40 | 40 ≤ h ≤ 60 | 60 ≤ h ≤ 100 |
| Frequency | 8 | 20 | 15 | 12 | 10 |

Draw the histogram of this distribution.

Q10: Find the total area of A and B considering that A and B both are squares:

