The City School

North Nazimabad Boys Campus

Topic: Mixed Concept (Paper II)

Mr. MohsinZaki

Subject: Mathematics

Grade: 09

Q1: y = p2 +6p

1. Find the value of p when y = 3

Give your answer correct to two decimal places

Q2: A ladder 5.8 m long stands on level ground and its top just reaches the top of a wall 4.1 m high. How far is the foot of the ladder from the wall?

Q3: The length of the diagonal of a rectangular board is 61 m and the length of one side is 60 m.  Find:

a.  the width of the board
b.  area of the board

Q4: 200 students took a test. The cumulative frequency graph information about their marks is shown below:

Use your graph to estimate

1. Median, Lower Quartile, Upper Quartile
2. Inter Quartile Range

20th and 80th Percentile

Q5: A square has side length (x+2)cm. A right – angled isosceles triangle has its two equal sides of length (2x + 1)cm. The area of the square is equal to the area of triangle.

1. Write down an equation in x
2. Show that your equation simplifies to 2x2 – 4x -7
3. By solving the equation find the perimeter of a square.

Q6: Find the unknown values in the given figure. Give your answer correct to two significant figures or nearest degree

1. 

Q7: Given circle has a radius of 11cm. Take π=3.142 to calculate



i) the length of the minor arc AB

ii) the area of the minor sector AOB

Q8: A straight line px = 5y + 4 has the same gradient as the line 7x + 6y + 5 =0. Find the value of m.

Q9: A shopkeeper buys paint at $32 per tin. He marks up the price of eah tin of paint such that he can make a profit of 15% in each tin.

1. Find the selling price of each tin.
2. Calculate the total; amount that customer has to pay for 5tins of paint.