කැලණිය අධ්‍යාපන කලාපය
Kelaniya Education Zone

දෙවන වාර ඇගයීම - 2017
Second Term Evaluation - 2017

| ශ්‍රේණිය Grade | 7 | විෂයය Subject | Mathematics | කාලය Time | 02 Hours |

Name/ Index Number..

Paper I

- Answer all questions from 1 to 20 on this paper itself.
- Each question carries 02 marks in Paper I (02 X 20 = 40 marks)

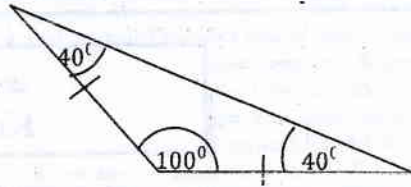1) Simplify : $15 - 9 \div 3$

2) Find the value of $(+3) + (-7)$

3) Write two equivalent fractions for $\frac{2}{5}$.

4) Find the value of 5.25×100

5) If $5x = 30$, find the value of x.

6) Write the type of this triangle,

    i. According to its side

    ii. According to its angles

7) Write all factors of 15.

8) $8\ m$ length wire is cut into 20 equal parts. Find the value of one part in centimeters.

9) Express $\dfrac{3}{4}$ as a decimal.

10) The length of a rectangle is more than $3\ cm$ its breadth. If the breadth of the rectangle is $6\ cm$, find the perimeter of the rectangle.

11) Expand : a^2b^3

12) If the number 53[ ] is divisible by 9 without any remainder, then find the suitable value for the blank.

13) Write down

    i. The decade

    ii. The century, of AD 1966 belongs

14) Write the suitable numbers for the blanks.

$$3.06\ l = \ldots\ldots\ldots ml = 3\ l \ldots\ldots\ldots ml$$

15) Find the volume of a cube with side length 6 cm.

16) Express 27 as a power of 3.

17) Simplify : 5 m 21 cm × 4

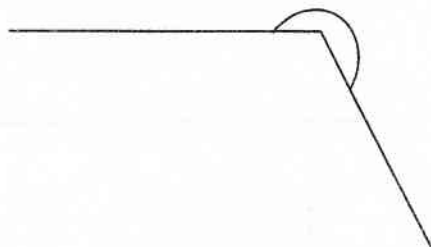18) Simplify : $5x + 6y - 5x + y$

19) Simplify : $3\frac{2}{3} - 1\frac{1}{3}$

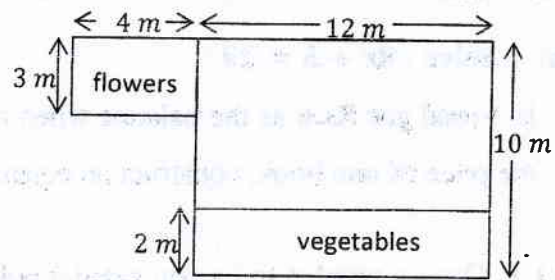20) Is 2100 a leap year or not? Explain your answer.

Paper II
- Answer **first question** and another **four questions**.
- First question carries 16 marks and other questions carries 11 marks.
- Write the answers in another paper for Paper II and attach it to the Paper I.

1) (a) Recall the memory about the activity done in your class, during the lesson "Circle"

    i.   Name the tool that you used to construct circles in the mathematical tool set.   (1 mark)

    ii. By using that tools construct a circle with the radius 5 cm and name its center. (1 mark)

    iii. Make a point on the circle and name it as A.   (1 mark)

    iv. Extend AO and name the point where it meets the circle again as B.   (1 mark)

    v. What is the special name that you gave to the line segment AB.   (1 mark)

    vi. What is the length of AB?   (1 mark)

    vii. Recall and write down the conclusion you got according to the names and lengths of AO and AB.   (2 marks)

(b)   i. Using the protractor, draw and angle of 100^0.   (2 marks)

    ii. Name it as $P\hat{Q}R$.

    iii. Measure and write the magnitude of the given reflex angle.   (2 marks)

(c) Using the straight edge and the set square,

    i. Draw a square with a side length of 4 cm and name it as $ABCD$.   (2 marks)

    ii. Join A and C. Draw a parallel line to the AC which goes through B.   (1 mark)

2) A sketch of a garden is given.

i. Find the perimeter of the garden. (2 marks)

ii. Find the total cultivated area of flowers and vegetables. (3 marks)

iii. Find the house situated area. (2 marks)

iv. Find the total area of the garden. (2 marks)

v. They are planning to build a fence around the garden. If 4 fence wires are used, find the total length of the wires. (2 marks)

3) (a) i. Fil in the blanks to indicate the given mixed number as improper fraction. (3 marks)

$$3\frac{2}{5} = \frac{5}{5} + \frac{5}{5} + \frac{[\;]}{5} + \frac{[\;]}{5} = \frac{[\;]}{5}$$

ii. Nimal says that $\frac{2}{3} < \frac{3}{4}$, Are you agreeing with the above statement? (1 mark)

iii. Give the reasons for your answer. (1 mark)

(b) Simplify.

i. $\frac{4}{5} - \frac{3}{10}$ (2 marks)

ii. $4\frac{1}{3} + 2\frac{2}{5}$ (3 marks)

iii. Express $\frac{5}{100}$ as a decimal. (1 mark)
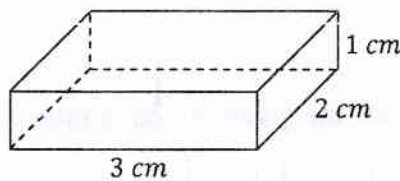
4) (a) Kamal is y years old now.

i. Write an algebraic expression to express Kamal's age 3 years ago. (1 mark)

ii. Kamal's father is 3 times and 4 years more elder than Kamal's present age. Write an algebraic expression for father's age. (2 marks)

iii. Construct an algebraic expression to show the father's current age and Kamal's age 3 years ago as an addition. (2 marks)

iv. Simplify the above algebraic expression. (2 marks)

v. If Kamal is 15 years old now, how old is his father? (2 marks)

(b) If $a = 3$ and $b = -2$, find the value of $2a + b$. (2 marks)

5) (a) i. Solve : $8x + 5 = 29$ (2 marks)

ii. Nimal gor Rs.6 as the balance when he gave Rs.150 to buy 6 books. By taking Rs.x as the price of one book, construct an equation and find the price of a book. (4 marks)

(b) i. Draw a regular and a non-regular polygon. (2 marks)

ii. Draw a concave polygon with 5 sides and one reflex angle. (1 mark)

iii. A house requires $1kg\ 600g$ of rice for one day. What is the amount of rice required for a week? (2 marks)

6) (a)

i. Find the volume of this cuboid box. (2 marks)

ii. In a container, six of these cuboid boxes are arranged in two layers such that three boxes are in one layer. Find the length, breadth and height of this container. (3 marks)

iii. Show that the volume of this container is $36\ cm^3$. (1 mark)

(b) Simplify.

i. $3l\ 345ml + 2l\ 660ml$ (2 marks)

ii. $9l\ 450\ ml \div 3$ (2 marks)

iii. Express $3l\ 60ml$ in liters. (1 mark)