පළාත් අධ්‍යාපන දෙපාර්තමේන්තුව - උතුරු මැද පළාත
மாகாணக் கல்வித் திணைக்களம் - வட மத்திய மாகாணம்
DEPARTMENT OF EDUCATION – NORTH CENTRAL PROVINCE

Third Term Test - 2023

Grade: 7

Subject :- .. Mathematics

School Name : .....

Index Number : .....

Time : 2hours

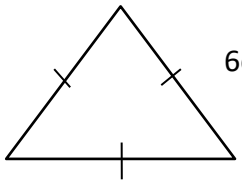
Part 1

Answer all the questions on this paper itself.

(01) Simplify

$\frac{2}{3}+\frac{1}{6}$

(02) find the perimeter of the triangle.



6cm 8 mm

(03) Draw a bilaterally symmetric figure which has only two axes of symmetry and draw the axes of symmetry of the figure.

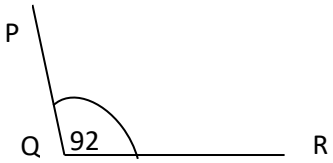
(04) Express the set P= {letters of the word "COLOMBO"} by writing all the elements of the set within curly brackets.

(05) Write 81 in index notation with the prime number as the base.

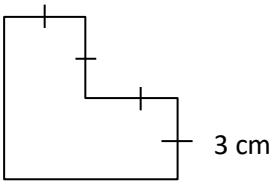
(06) Write the last day of the 20^{th} century.

(07) Find the value of $4x$ -3 when the x = 2.

(08) Name the angle in the figure and write the type of the angle.



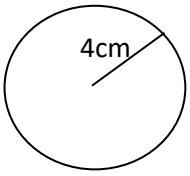
(09) Find the area of the figure.



(10) Simplify 3.15 x 6

(11) Write an advantage of graphs that represent data.

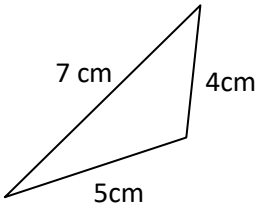
(12) Find the diameter of the circle.



(13) If the mass of a mango is 150g, Estimate the mass of 100 mangoes in the bag.

NCP/G07/2023/3rd/32S

(14) Write type of the triangle according to the length of the sides.

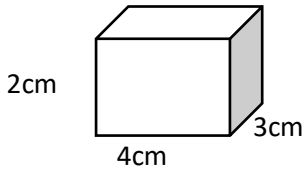


(15) Simplify $30 + 10 \div 5$

(16) Write down two objects that can be observed in the school that have parallel edges.

(17) The number 538☐ is divisible by both 4 and 6.Find the suitable digit for the empty space.

(18) Find the volume of the solid.



(19) Solve the equation.

$3x - 2 = 13$

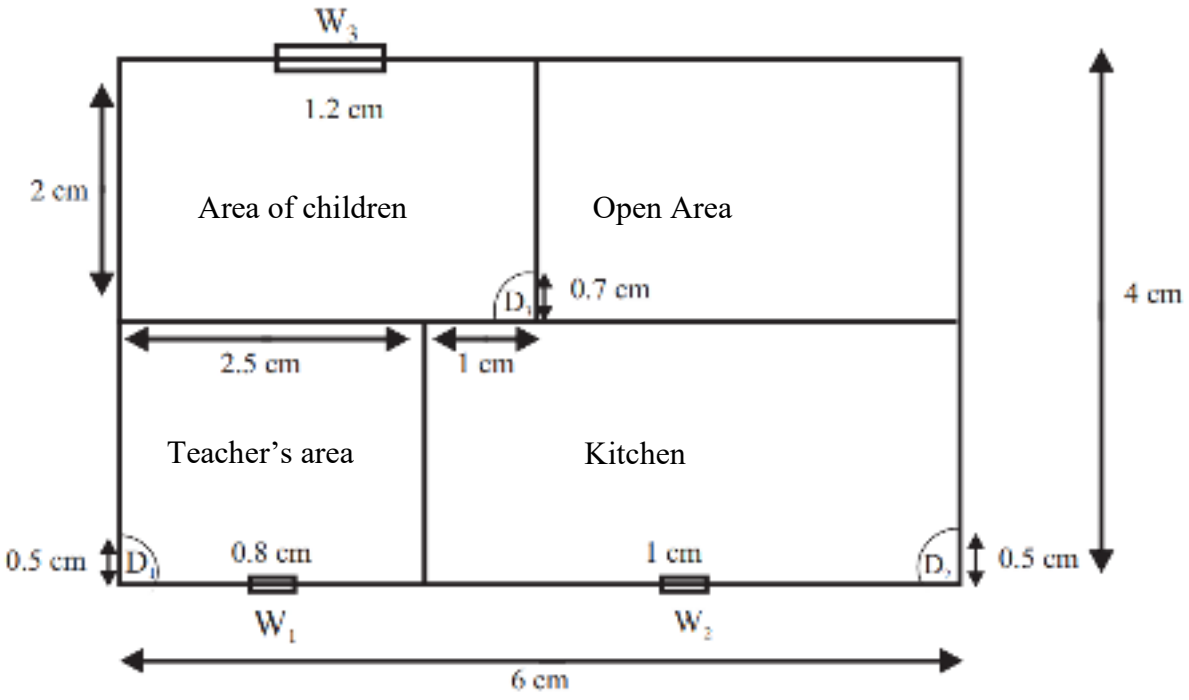
(20) Simplify. (-8) + (-4)

Part 2

- **Answer the first question and another four (04) questions only.**
- **Use separate papers to write answers.**

(01)

(a) The floor plan of a suggested new canteen of a school is shown in the figure. It has drawn to the scale 1: 200.



I. Find the actual width of the door D_1. (2 marks)

II. Find the actual length of the window W_3. (2 marks)

III. Find the actual length and width of the area of children and hence find the area of it. (3 marks)

IV. Find the true perimeter of the canteen. (3 marks)

(b)

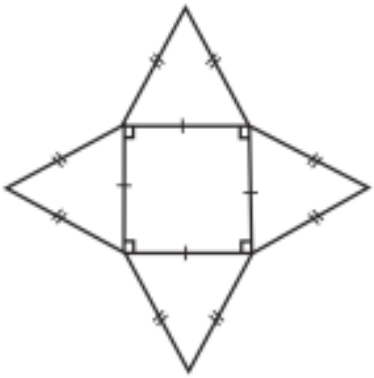
I. Construct a regular hexagon of side length 3 cm. (2 marks)

II. Construct equilateral triangles on all sides of the hexagon such that out of the hexagon. (2 marks)

III. Join all outside vertices of those equilateral triangles and suggest a name for the figure that you get. (2 marks)

(02) (a)

I. Write down the name of the solid which can be made using the following net. (1 mark)

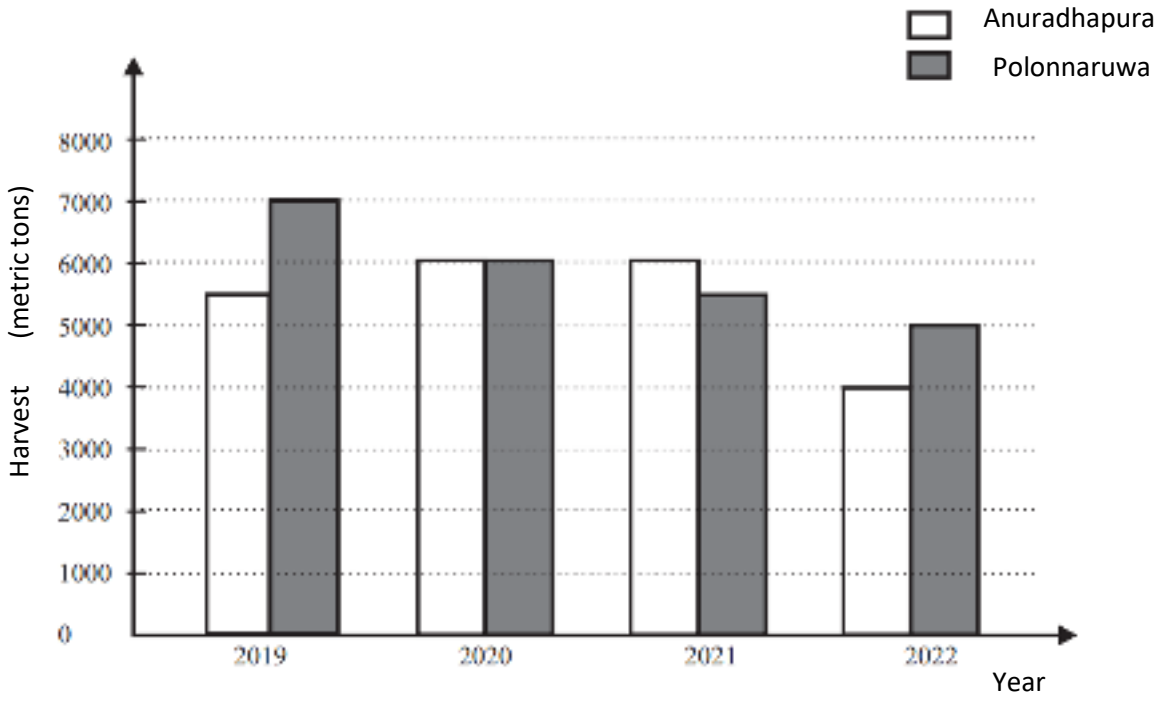


II. Write down the number of faces, edges and vertices of the solid which made by above net. (3 marks)

III. Write down the number of faces , edges and vertices of the solid you obtain by overlapping and pasting together two square faces of two identical solids which made by above net and check whether they satisfy Euler's relationship. (5 marks)

(b) Create a pure tessellation that you like. (2 marks)

(03) (a) The following multiple column graph represents information of maize production in Anuradhapura and Polonnaruwa districts during the last four years.

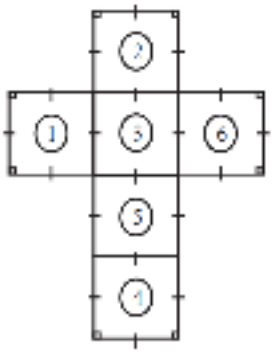


I. Find the total maize harvest in Anuradhapura district during the last four years. (3 marks)

II. In which year has the most amount of maize yield been obtained? How much is it? (3 marks)

III. What can you say about the maize yield from Polonnaruwa district in the last four years? (2 marks)

(b) The net shows in the below was prepared to be used by a student to conduct a random experiment.



I. Write down the name of a face of the solid made of this net. (1 mark)

II. Explain whether the solid object which made of this net is fair or not. (2 marks)

(04) (a)

I. Plot the points which are A (5,1) , B (5,3) , C (7,2) , D (5,6) , E (6, 5) , F (4,10) , G (2,5), H (3,6) , I (1,2) , J (3,3) , K (3,1) on a Cartesian plane and join them with straight line segments in the order of the letters and return to the starting point. (6 marks)

II. Suggest a suitable name for the figure obtained above. (1 mark)

(b) The length of a flower bed is 8m more than its width.

I. If the width of the flower bed is "x" meters, construct an expression to find its perimeter that denoted by "P". (2 marks)

II. If its width is 10m, find the perimeter of it. (2 marks)

(05) (a) The ratio that three friends Sunil, Kamal and Nimal used money to buy a certain land is 2: 3: 5.

I. If the amount invested by Sunil is Rs.100 000, find the amount invested by other two of them separately. (4 marks)

II. Find the total amount invested by all of them. (2 marks)

(b) The distance from Sachini's house to school is 6 km. She is going the initial 4–km by bus and walking the remaining distance.

I. What was the distance that Sachini walked? (2 marks)

II. If she takes 20 minutes to walk 1km, how much time does she take to walk? (3 marks)

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(06) (a) The quantity of liquid milk brought in one day by four dairy farmers to a certain milk collection center is as follows.

Mahinda	9*l* 750m*l*
Supun	10 *l* 500m *l*
Priyantha	8 *l*
Upali	11 *l* 500m *l*

I. What is the total amount of milk that all four of them brought that day? (2 marks)

II. That brought milk is filled into bottles of capacity 750m*l* each without wasting. Find the minimum number of bottles that can be filled. (2 marks)

III. The mass of a bottle filled with milk is 1.2kg. Supun said that total weight of bottles filled with milk is not greater than 65kg.Check whether his statement is true or false. (3 marks)

IV. If Rs.100 is paid for 1*l* of milk, find the amount of money received by the four of them respectively.

(4 marks)

(07) (a) Organizing committee of Singhapura primary school has organized a trip and estimated that its cost would be – of the total cost for buses , 15% for foods and 0.25 for accommodation.

I. Show the expenses of busses and accommodation separately as a percentage of total cost. (4 marks)

II. Explain which task will cost the most of the trip. (2 marks)

(b)A fishmonger comes once in three days, an iron collector comes once in four days and an ice cream vendor comes once in two days to Katiyawa village.

If all three of them came to the village on Sunday, February 25, 2024 at the same time. Write down the nearest date and day that they will come together again to the village at the same.

(5 marks)