දකුණු මධ්‍යම පළාත් අධ්‍යාපන දෙපාර්තමේන්තුව - උතුරු මැද පළාත
மாகாண கல்வித் திணைக்களம் - வட மத்திய மாகாணம்
DEPARTMENT OF EDUCATION - NORTH CENTRAL PROVINCE

Third Term Test - 2023

Grade: 08

Subject :- Mathematics - I , II

School Name : .....

Index Number : .....

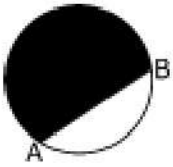
Time : 02 hrs.

Part I

Answer all the questions.

01. In the number pattern 21,18, 15, … write the next two terms.

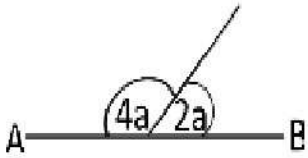
02. AB is a chord of the given circle. Name the shaded part of the circle.



03. Find the value of x

$\frac{x+3}{5} = 7$

04. AB is a straight-line segment, Find the magnitude of 'a'



05. Fill in the blank.

…….. t = 5t 100kg

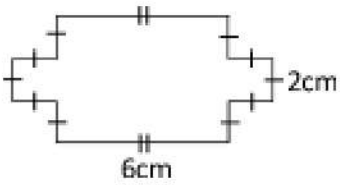
06. A bag contains 2 red balls, 3 blue balls and 10 green balls. A ball is taken out randomly, Find the probability of it being,

(i). a red ball -……

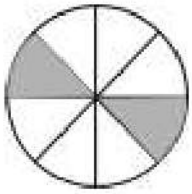
(ii). a green ball - …….

07. Write the elements of the set, A = {prime numbers between 10 and 20}

08. Find the perimeter of following figure.



09. Write the inequality represented on the number line.

10.  Write the shaded part as fraction of whole part.

11. The mean of the marks obtained by 7 children for the maths paper is 52. Find the total marks which obtained by seven children.

12. The perimeter of a triangle is 12 cm. Find the area of the square with the same perimeter of the triangle.

13. Find the value.

$(-25) \div (-5)$

14. y *and* 32^0 are a pair of complementary angles. Find the magnitude of y

15. The height of a cake of soap is 5.5cm. Estimate the height of 8 such cakes of soap.

16. Write $\frac{1}{8}$ as a percentage.

17. Express, $121x^2$ as a power of product.

18. Simplify
$\frac{12}{5} \times \frac{20}{3}$

19. The length of a cuboid is twice of its breadth. The breadth is 5cm. If the volume of this cuboid is 300 cm^3. Find the height of the cuboid.

20. To make a cake, sugar, flour and butter are mixed in the ratio 3:2:1. If the mass of flour is 180g, Find the total mass of the mixture.

Part II

- **Answer only 5 questions, including 1st question.**

01.

(a) The number of students of several schools who visited the museum on a certain day is given bellow.

38, 68, 53, 47, 41, 39, 39, 61, 68, 42, 54, 68, 55, 46, 68, 58, 38, 42, 43, 62

(i) Represent above data in a stem and leaf diagram. (4 Marks)

(ii) How many children had visited to the museum. (1 Marks)

(iii) Find the range of data. (2 Marks)

(iv) Find the mode of this data. (1 Marks)

(v) Write percentage of the number of schools in which participated less than 40 students. (2 Marks)

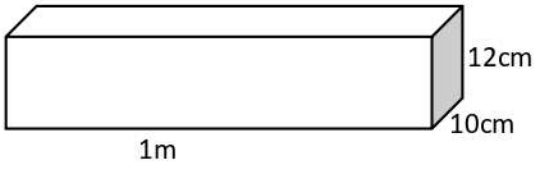
(b) Euler's relationship is an important fact when we are doing activities related to solids.

(i) Write Euler's relationship. (2 Marks)

(ii) The number of edges and vertices of a certain solid are 12 and 8 respectively. Find its number of faces. (2 Marks)

(iii) Name the solids which have above characteristics. (2 Marks)

02. Following figure shows a cuboid shaped fish tank without a lid.



(i) Find the total area of the glass sheet used to make the fish tank. (4 Marks)

(ii) If the cost of $1cm^2$ of glass sheet is Rs. 10.00, find the total cost for making tank. (2 Marks)

(iii) The tank is filled with $\frac{3}{4}$ of water. Find this amount of water in cm^3 (3 Marks)

(iv) Express above-mentioned volume of water in litres. (2 Marks)

03.

(i) Draw a cartesian plane where the x axis and the y axis are mark from -6 to +6 (2 Marks)

(ii) Mark given coordinates on the cartesian plane. A (-1,4), B (3,4), C (5,0), D (4,0), E (4, -3), F (-2, -3), G (-2,0), H (-3,0) (5 Marks)

(iii) Join all the points in the order of the letters with a straight line. . (1 Marks)

(iv) Draw the axis of symmetry of above obtained figure and write the equation of axis of symmetry. (3 Marks)

04.

(a) Sugath invested Rs.50,000.00 and started a business on the 1st of January of a certain year and Saman and Amal joined to the business by investing Rs.30,000.00 and Rs.20,000.00 respectively on 1st of march.

(i) If the profit from the business at the end of the year is Rs.55,000.00, calculate the ratio in which the profit should be divided between them. (3 Marks)

(ii) Find the profit received by each of them. (6 Marks)

(b) Rs.90,000 was divided among A, B and C as follows

A: B = 2: 1

B: C = 2: 3

Calculate the amount of money received by each of them. (2 Marks)

05.

(a) D is set of the letters of the word ''KURUNAGALA"

(i) Represent the elements of D in Venn diagram. (2 Marks)

(ii) Represent the set D, using a common characteristic of its element. (2 Marks)

(iii) Find n(D) (1 Marks)

(iv) "O is not an element of the set D". Write this using set notation. (2 Marks)

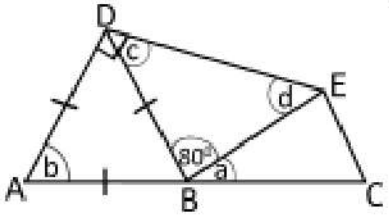
(v) B = {multiples of 6 between 1 and 5}

a. Write the special name of this type of sets

b. Write the set notation of this set

(2 Marks)

(b) Find the magnitude of a,b,c and d in following figure.(ABC is a straight line segment) (2 Marks)



06.

(a) A sketch of the floor plan of a rectangular land is shown in the figure.

Using 1: 1000 scale

(i) Find the scale length. (2 Marks)

(ii) Find the scale breadth. (2 Marks)

(iii) Draw a scale diagram of the land. (2 Marks)

(b) The library is situated East of the classroom in a certain school. The principal's office is situated in the direction 60^0 East of North from the class room and in the direction 45^0 West of North from the library. Illustrate this information with a sketch. (5 Marks)

07. (i) In the triangle ABC, AB = 6cm, BC = 7cm and AC=11.4cm.
Construct this triangle. (4 Marks)

(i) Measure and write the magnitude of $A\hat{B}C$. (1 Marks)

(ii) Write the type of triangle according to the above measured angle. (2 Marks)

(iii) Mark the midpoint of AB and name it as "O" (2 Marks)

(iv) By taking O as the centre and AO as the radius, construct the circle. (2 Marks)