තෙවන වාර පරීක්ෂණය - **07** ශ්‍රේණිය - 2023
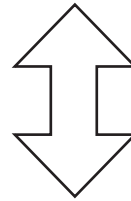**Third Term Test - Grade 07 - 2023**

Mathematics - I

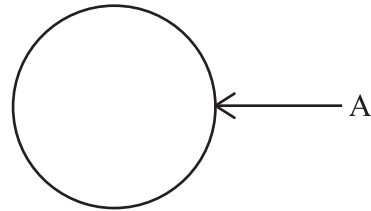Time: 02 Hours

Name / Index No.

- **Answer all questions in the paper itself.**
- **Each question carries 2 marks.**

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01. Draw all the axes of symmetry of the figure given.

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02. Represent the set of letters of the word
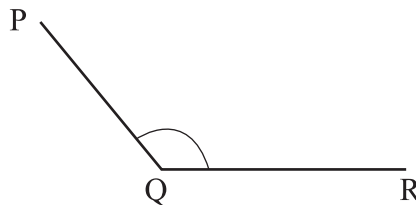" M A T H E M A T I C S " in the following venn diagram.

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03. Evaluate, $(+5) + (-8)$

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04. Write down, $\dfrac{7}{25}$ as a percentage.

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05. Simplify, $8 + 3 \times 5$

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06. Name the angle given in the figure

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07. Simplify, $\dfrac{5}{6} - \dfrac{2}{3}$

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08. Add;

	Years	Months	Days
	5	09	20
+ 2		01	15

1

09. Write 36 as a product of its prime factors and hence write it in index form.

$$36 = 2 \times 2 \times 3 \times \ldots\ldots\ldots\ldots$$

$$36 = 2^2 \times \ldots\ldots\ldots\ldots\ldots\ldots$$

10. Simplify, $2x - 5y + 4x + 7y$

11. Simplify,

	l	ml
	2	150
$\times$		7

12. Find the highest comnon factor (HCF) of 18 and 24.

13. The mass of 8 biscuits is $42g\ 24mg$. Find the mass of one biscuit.

14. The center of the given circle is O. According to the information given in the figure, write down
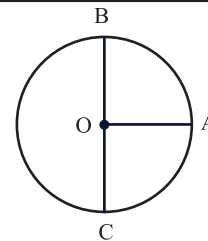
    i) Radius = ...

    ii) Diameter = ...

15. Put (✓) for the correct statements and (✗) for the incorrect statements of following statements.
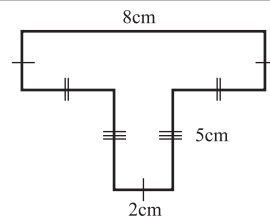
    i) Convex polygon has reflex angles   (   )

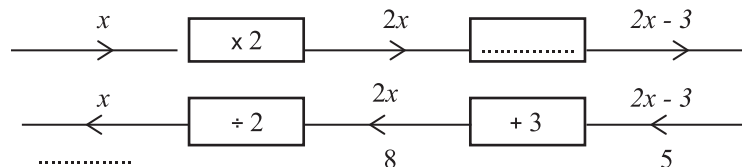   ii) Rhombus is a regular polygon   (   )

    iii) Square is a convex polygon   (   )

16. Simplify, $5x \times x^2 \times 2y^2$

17. Find the perimeter of the given figure,

18. Fill in the blanks,

19. Find the amount of money recieved by suresh, when an amount of Rs. 1000 was divided among Ramesh and Suresh according to the ratio of 3 : 2.

20. Write all the possible outcomes of the experiment of rolling an unbiased regular tetrahedron whose faces are numbered from 1 to 4.

Mathematics - Part II

- **Answer 1st question and 4 other questions.**
- **1st question carries 16 marks and each other question carries 11 marks.**

01. a) A multi-column graph which represents the marks of Mathematics, Science and English obtained by Didulanga who studied in grade 6 in the year 2022 for the first, second and third term tests is given below.
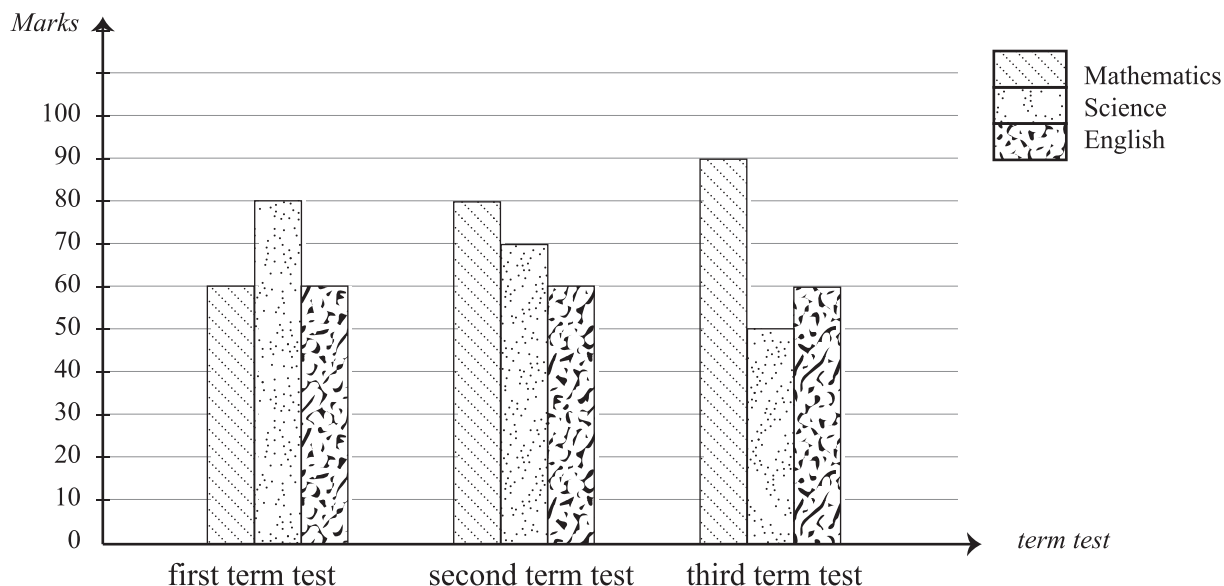

    i.   For which subject did he obtain equal marks in all three term tests?   (1 Mark)

   ii.   Which subject has an improvement in marks in the first, second and third term tests?   (1 Mark)

  iii.   Write the ratio of marks obtained for science in the first, second and third term tests and write down it in the simplest form   (2 Marks)

  iv.   Find the total marks obtained in the first, second and third term tests separately. Hence, write the term that obtained the highest marks.   (4 Marks)

b) Following figure is a sketch of a wall paper prepared for an exhibition of the creations of grade 7 students of a certain school.
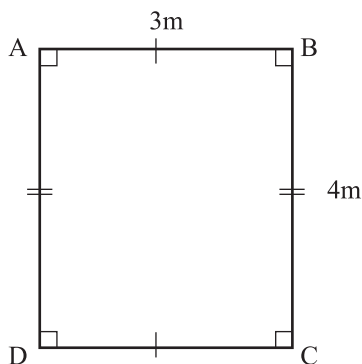
    i.   Write the scale of a scale diagram drawn by representing 50cm by 1cm as a ratio   (1 Mark)
   ii.   Draw the scale diagram of above wall paper using the above scale   (3 Marks)
  iii.   Join the points A and C of the drawn sacle diagram, measure and write the length of AC.   (2 Marks)
  iv.   Find the actual length of AC according to the above scale.   (2 Marks)

02. The way of placing 5 students in a group activity including 8 members of a drill displayed by students of grade 7 of Nihidu Vidyalaya is given in the following cartesian coordinate plane.
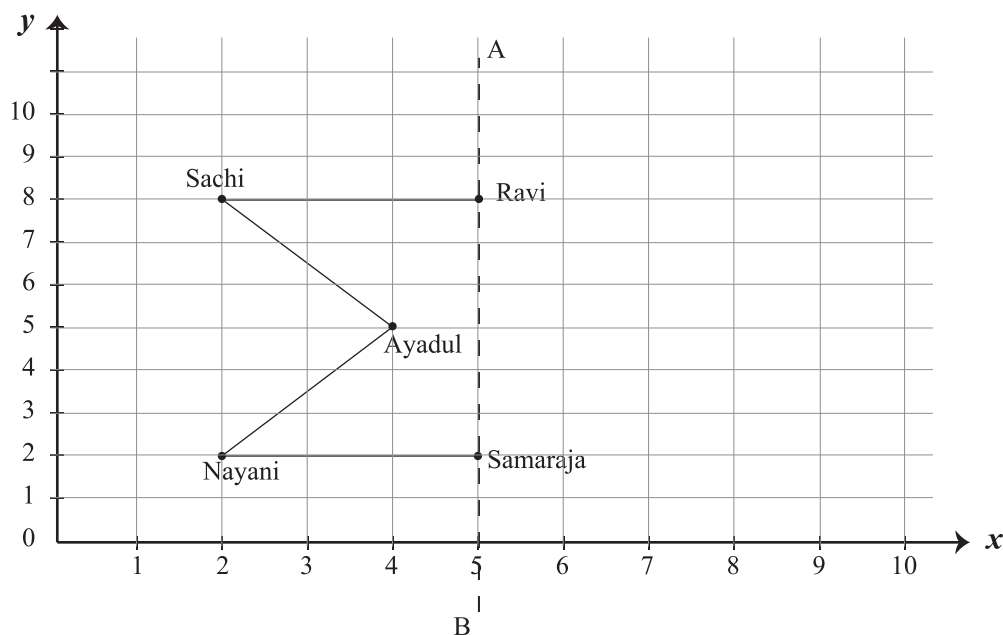
i.   Write the coordinates of Sachi and Ayadul as ordered pairs.

ii. If remaining 3 students Dasun, Kusal and Mohommed are placed such that AB as a axis of symmetry, Mark the way of placing them on the above cartesian coordinate plane. (copy the coordinate plane onto your answer script)

iii. Join the locations of the above students and obtain a closed figure.

iv. Draw other axes of symmetry of above closed figure using a dotted line.

v.   If a flag is placed at the point of intersection of above two axes of symmetry. Mark that point as O on above figure and write special characteristic that point has.

03. a) Simplify,

    i. $\dfrac{2}{5} + \dfrac{1}{5}$ (1 Mark)

    ii. $\dfrac{5}{21} + \dfrac{3}{7}$ (2 Marks)

    iii. $3\dfrac{1}{4} + 2\dfrac{1}{3}$ (3 Marks)

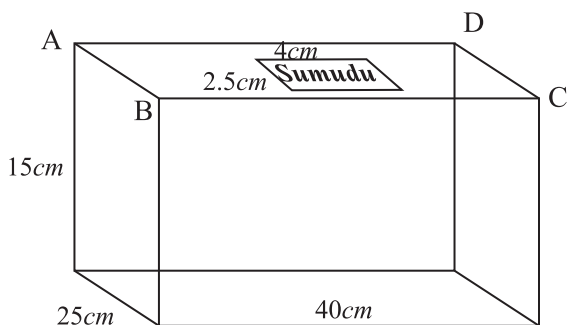   iv. $3 - 1\dfrac{3}{5}$ (2 Marks)

b) Write following decimal number and fraction as percentages.

    i. 0.8   (2 Marks)

    ii. $\dfrac{3}{4}$ (1 Mark)

04. Following figure is a sketch of a box which is used by a soap manufacturing company to packed cakes of soap "Sumudu".


a)   i.   Find the area of face ABCD of the box that pieces of soap are stored,   (2 Marks)
     ii.   Find the area of the part where the rectangular lable "Sumudu" is pasted   (2 Marks)
    iii. Find the area of the remaining part of the above face where the lable is pasted without the lable   (2 Marks)

b)
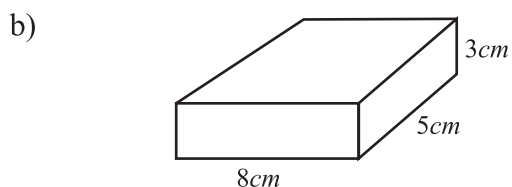
  According to the measurements of the piece of soap given in the above figure.
  i.   Find the volume of the piece of soap   (2 Marks)
  ii. Find the maximum number of pieces of soaps which can be stored in the box given in part "a"   (2 Marks)

05. A net of a certain solid is given below. Answer the questions according to that.
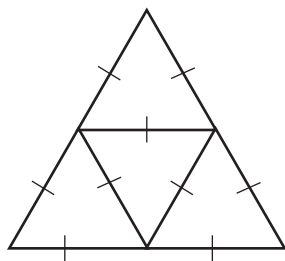
a)   i.   Write the name of the solid that can be prepared by using the above net   (1 Mark)
     ii.   Write the number of faces, number of vertices and number of Edges that solid has.   (3 Marks)
    iii. Show that the above values satisfy the Euler's relationship   (2 Marks)

b)   i.   Draw a tessalation by using the shape of a face of above solid.   (3 Marks)
     ii.   What is the type of the tessallation to which the tessallation you drawn belong?   (2 Marks)

06. i. Construct the straight line segment PS = 6cm and mark the point O on PS such that PO = 3cm (2 m.)

ii. Construct a circle by taking center as O and radius as OP
What is the special term used to define the line PS? (3 m.)

iii. Construct the regular hexagon PQRSTU on above circle such that P and S are vertices. (2 m.)

iv. Produce the sides PQ and SR to meet each other. Name the point where those lines meet as A. (2 m.)

v. What is the type of triangle PAS according to the length of the sides (2 m.)

07. a) Saman bought 2kg of sugar that costs x rupees per 1kg and 500g of dhal that costs y rupees per 1kg from a certain shop.

i. Write an algebraic expression for the total required amount of money to buy them. (3 m.)

ii. From that shop, Fathima spent Rs. 725 to buy 2kg of sugar at the same price and one piece of soap priced Rs. 125. construct an equation according to these information (3 m.)

iii. Find the price of 1kg sugar by solving the equation that you obtained (3 m.)

b)
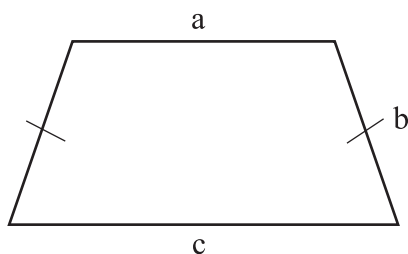
If the perimeter of the figure given is P. Construct a formula for P. (2 m.)

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Provincial Department of Education - NWP

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Third Term Test - Grade 07 - 2023

Mathematics

Answers

Part - I

1.	For correct 2 axes of symmetry	1 1	2	14.	OB or OA or OC BC	1 1	2
2.	M A T H E I C S ← A		2	15.	✗ For 2 corrects ✗ ✓ All correct	1	2
				16.	$10x^3y^2$		2
3.	(-3)		2				
4.	$\dfrac{28}{100} = 28\%$	1 1	2	17.	30cm		2
				18.	-3 4	1 1	2
5.	8 + 15 23	1 1	2				
6.	$\hat{PQR}$ or $\hat{RQP}$	2		19.	$\dfrac{1000 \times 2}{5}$ Rs. 400	1 1	2
7.	$\dfrac{4}{6}$ $\dfrac{1}{6}$	1 1	2	20.	obtaining 1 obtaining 2 obtaining 3 obtaining 4		2
8.	7 years 11 months 5 days		2				
9.	3 3^2	1 1	2				
10.	$6x + 2y$	1 1	2				
11.	15l 050ml		2				
12.	6		2				
13.	5 g 253 mg		2				

1