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சபரகமுவ மாகணக் கல்வித் திணைக்களம்  
Sabaragamuwa Provincial Department of Education

තෙවන වාර පරීක්ෂණය - 2017  
மூன்றாம் தவணைப் பரீட்சை 2017  
Third Term Test - 2017

07 ශ්‍රේණිය  
07 தரம்  
Grade 07

ගණිතය - I  
கணிதம் - I  
Mathematics - I

පැය දෙකයි  
இரண்டுமணித்தியாலம்  
Two hours

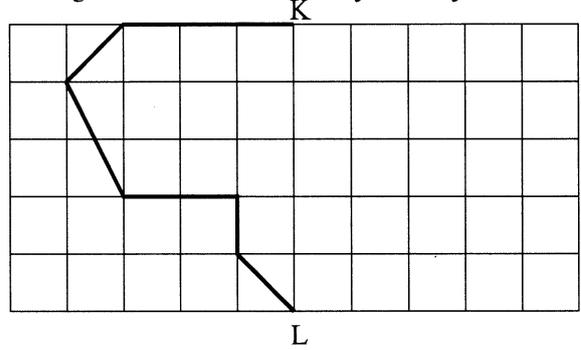
Name .....

Part II

\* Answer all questions.

01.  $B = \{ \text{Letters of the word "MATARA"} \}$  Express the all element of set B within curly brackets.

02. Complete the given bilaterally symmetric figure by taking "KL" as the axes of symmetry



03. Express  $\frac{14}{5}$  as a mixed number

04. Simplify :  $8 - 5 \times 1$

05. Saman made 250 g of tea packets from 3 kg of tea powder , calculate the number of packets he made

06' Choose the leap years from the years given below

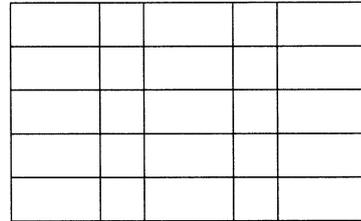
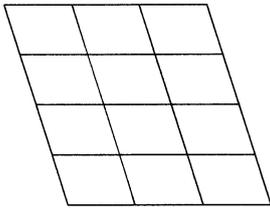
2017      1400      2016      1600      2027

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07. Draw the angle  $\hat{xyz} = 50^\circ$

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08. Write down the type of given tessellations.



09. Represent  $\frac{1}{4}$  as a percentage.

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10. Fill in the blanks.

$$3 : \square = 6 : 8 = 12 : \square$$

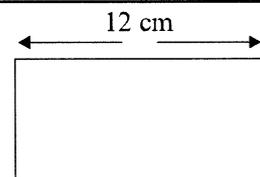
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11. Find the value

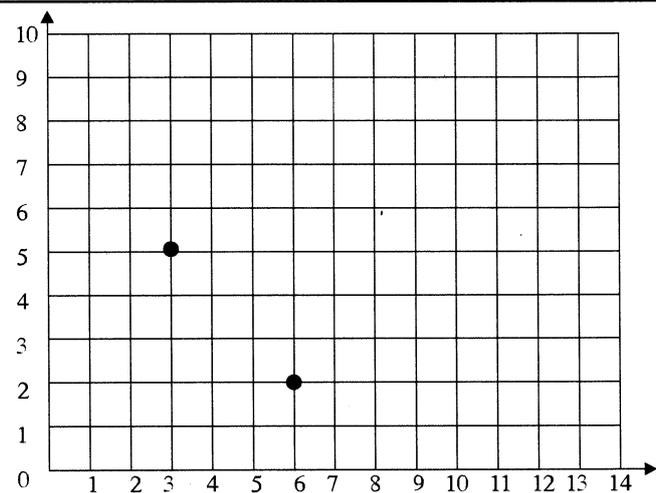
$$5.31 \times 14$$

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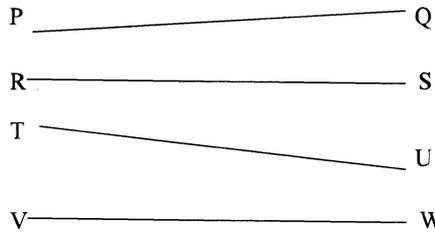
12. The area of given rectangle is  $60 \text{ cm}^2$ . Calculate the breadth of it



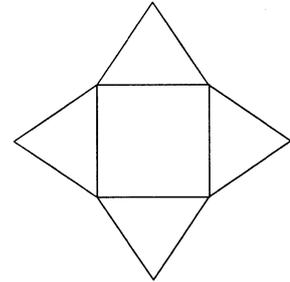
13. Write down the co-ordinates of the points on the given cartesian plane



14. Name a part of parallel lines from the given straight lines.



15. Write the number of vertices and faces of solid that can be made using the given sketch.



16. Construct an equilateral triangle with 5 cm of length and name it as ABC.

17. In a map drawn to the scale 1 : 5000, find the actual length represented by 8 cm

18. Compare the given fractions using the suitable symbol from "<" and ">"

(i)  $\frac{2}{3}$  .....  $\frac{3}{5}$

(ii)  $\frac{2}{7}$  .....  $\frac{2}{5}$

19. Express 2.5 m in centimeters.

20. Find the smallest number which remained 2 when divided by 3 and remained 4 when divided by 5

## Part II

\* **Answer five questions only.**

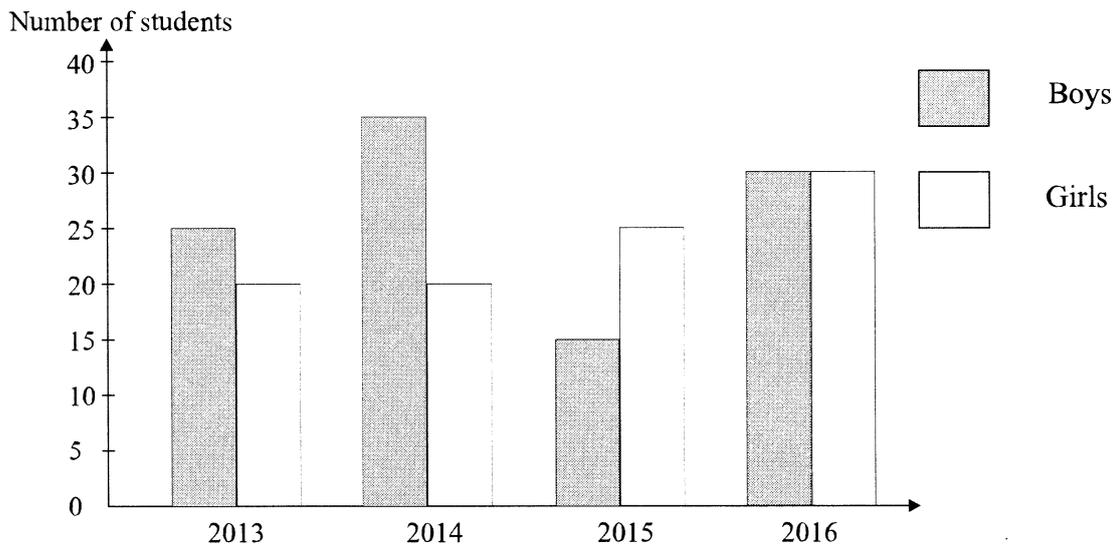
01. a) (i) Write down  $\frac{2}{5}$  as a decimal number. (02 marks)

(ii) Simplify  
 $450.30 \div 15$  (03 marks)

b) (i) If  $x = 1$  and  $y = 3$ ,  
 Find the value of  $2x^2y$  (03 marks)

(ii)  $(+3) + (-5)$  Find the value by using number line. (03 marks)

02. (a) The following graph represents information about the students who faced G.C.E O/L examinations during last four years.



(i) In which year has the most number of students been faced?

(ii) In which year has the highest difference between girls and boys? Write down the value of it.

(iii) In which year has the same number of boys and girls participated for G.C.E. O/L examination? Write down the value of it.

(b) (i) Select and write down the events which definitely occur and events which definitely do not occur from events given below.

\* The heavy stone floating on water.

\* If today is Monday, then tomorrow is Tuesday.

\* When a red regular cube is tossed, the side that lands up being red. (03 marks)

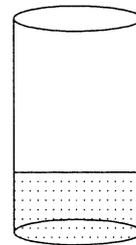
(ii) Put "✓" for unbiased objects, Put "✗" for biased objects.

\* A unbiased (fair) coin ( )

\* A fair die ( )

\* The coconut shell ( )

03. (a) (i) Write down number of times of value of the shaded portion to the total volume. (02 marks)
- (ii)  $4\ 600\ ml$  of milk is poured equally into 200 ml bottles, how many bottles can be filled? (02 marks)
- (iii) Saman has  $5\ 1200\ ml$  of milk and Sugath has  $3\ 1\ 900\ ml$ , of milk. What is the total number of milk in litres and millilitres? (02 marks)



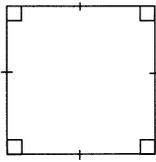
- (b) (i) To which decade does AD 1982 belong? (02 marks)
- (ii) To which century does AD 1982 belong? (02 marks)
- (c) Annuradha's date of birth is 1982 - 04 - 04. Sunil is 3 years, 8 months and 20 days older to her. What is Sunil's date of birth? (04 marks)

04. (a) (i) Kumudu has 80 flowers and Supipi has 96 flowers. The ratio between Kumudu and Supipi is 5 : 6 (03 marks)
- (ii) The ratio of ages between Sumudu and Sumith is 3 : 5. If Sumudu's age is 9, show that age of Sumith is 15. (03 marks)
- (b) (i) Represent 1.73 as percentage. (02 marks)
- (ii) Among these students in the class,  $\frac{2}{5}$  students are studying dancing, 0.4 students are studying music, 20% students are studying art. Write down  $\frac{2}{5}$  and 0.4 as a percentage. (02 marks)

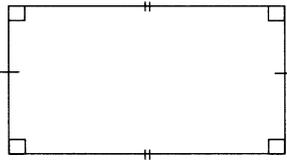
05. (a) (i) Write down edges and vertices of a triangular prism. (02 marks)
- (ii) Write down Euler's relationship. (02 marks)
- (iii) If a certain solid has 8 faces and 6 vertices, find the number of edges of the solid (02 marks)
- (b) Do following constructions using only the straight edge and pair of compasses.
- (i) Construct a circle of radius 5 cm. Name its centre as O.
- (ii) Construct a regular hexagon PQRSTU with 5 cm of length of a side.
- (iii) Write down the type of the triangle ROS. (06 marks)

06. (i) Find the diameter of the circle with the radius of 5 cm. (02 marks)

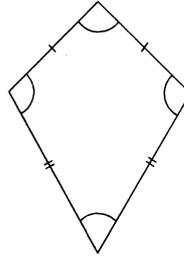
(ii) Complete the given table using following figures.



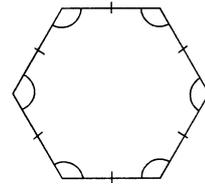
(a)



(b)



(c)



(d)

Figure	Regular/ not regular
(a)	
(b)	
(c)	
(d)	

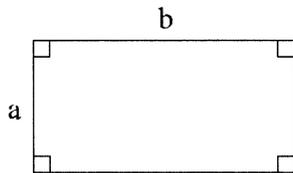
(04 marks)

(b) A 10000 l water tank is filled with water. Due to crack in a pipe 20 l of water leaks out per day.

- (i) Calculate the amount of water leaks out during 10 days in litres.
- (ii) How many litres of water remained in the tank after 10 days?
- (iii) If one house uses 100 l of water per day, Calculate the number of houses that can be used the remaining water.

07. (a) (i) If  $a = 3, b = 1$  calculate the value of  $3a + 2b - 2$  (03 marks)

(ii) If the perimeter of the given rectangle is P, write an expression for P using 'a' and 'b'



(03 marks)

(b) (i) Plot the following points on a cartesian plane

P = (0, 0)

Q = (0, 4)

R = (3, 6)

S = (6, 4)

T = (6, 0)

- (ii) Join the points PQRSTP respectively.
- (iii) Suggest a name for the figure obtained.

**Mathematics I**  
**Third Term Test**  
**Marking Scheme**

Ques No.	Answer	Marks	Remarks
01.	$B = \{ M, A, T, R \}$	02	
02.	correct figure	02	
03.	$2\frac{4}{5}$	02	
04.	$8 - 5 = 3$ — (1) $= 3$ — (1)	02	
05.	12	02	
06.	2016, 1600	02	
07.	correct figure — 1 Named the angle — 1	02	
08.	Pure Tessellation — 1 Semi Pure Tessellation — 1	02	
09.	$\frac{1}{4} \times 25 = 6.25$ $25\%$	02	
10.	$4 : 16$	1 + 1 02	
11.	$74.34$	02	
12.	5 cm	02	
13.	P(3.5) Q(6.2)	1 + 1 02	
14.	RS // VW	02	
15.	Faces 05 vertices 05	1 x 1 02	
16.	correct figure 01	02	
17.	1 cm = 5000 cm 400m	01 02	
18.	$\frac{2}{3} > \frac{3}{5}$ $\frac{2}{7} < \frac{2}{5}$	1 x 1 02	
19.	250 cm	02	
20.	14	02	

**II කොටස**

01. (a) (i)	0.4 $\frac{4}{10} - 1$ 0.4 — 1	02	
(ii)	30.02	03	
(b) (i)	2 x 1 x 1 x 3      (1)    2xXxXx y    (1) 6 — (2)	04	
(ii)	Draw a number line — 1 To mark these points — 1 To get answer                      (2)	03	
02. (a) (i)	2016	02	
(ii)	2014 -15	02	
(iii)	2016 -30	02	
(b) (i)	* definitely doesn't occur * definitely occur. * definitely occur.	03	
(ii)	* ✓      * ✓      * ✗	03	
03. (a) (i)	4	02	
(ii)	4600 — (1) $\frac{4600}{200} = 23$ — (1)	02	
(iii)	9 l 100 ml	02	
(b) (i)	* 199 * 20	02	
(ii)	1978 - 07 -14	04	
04. (a) (i)	80 : 96 - 5 : 6    (1)	03	
(ii)	3 : 5 $\frac{9}{3} \times 5 = 3 \times 5 = 15$	03	
(b) (i)	$\frac{173}{100}$ .173 %	02	
(ii)	Dancing 40 % music 40 %	04	

05. (a)	(i)	* Edges 9                      * vertices 6	02	
	(ii)	To write Euler's relationship	02	
	(iii)	12	02	
(b)	(i)	correct figure	01	
	(ii)	To create hexagon	03	
	(iii)	Equilateral triangle	02	
06. (a)	(i)	Diameters = 5 cm x 2 = 10 cm	02	
	(ii)	a    Regular b    not regular c    not regular d    Regular	04	
(b)	(i)	200 /	02	
	(ii)	10000 - 200       -       9800	02	
	(iii)	98	02	
07. (a)	(i)	3 x a + 2 x b - 2 3x3 + 2 x 1 - 2 9 + 2 - 2 11 - 2 = <u>9</u>	01 01 01	
	(ii)	P    =    a + a + b + b P    =    2a + 2b	03	
(b)	(i)	To draw a cartesian plane	02	
		To mark given the points	02	
		To join points	01	
		To name the figure	01	