

දෙවන වාර පරීක්ෂණය - 2024  
2<sup>nd</sup> Term Test

ශ්‍රේණිය } 09  
Grade }  
විෂයය } Mathematics I, II  
Subject }  
කාලය } 02 1/2 Hours.  
Time }

Name : .....

Part I  
Answer all the questions.

01) Write the suitable terms for the blanks of the following number pattern.  
47, 42, 37, ..... , 27, .....

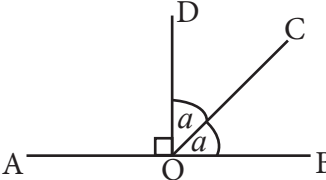
02) Find the value of  $-10x$  when  $x = \frac{1}{5}$ .

03) How many times should poured to fill a vessel completely which capacity is 3l from a cup of capacity 75ml?

04) The order in which the keys need to be pressed to obtain the value of  $\sqrt{6.25}$  is given below. Fill in the blanks.  
ON →  → 6 → . → 2 → 5 →  → 2.5

05) Solve.  $\frac{x}{5} - 6 = 3$

06) Find the value of "a". AB is a straight line.



07) Write  $29_{\text{Ten}}$  as a binary number.

08) The interior angles of a triangle are in the ratio 5 : 6 : 7 . Find the magnitude of the largest angle.

09) Find the factors.  $81 - x^2$

10) What is the height of water in the tank with base area  $160\text{cm}^2$  and volume  $800\text{ml}$ .

11) Make "m" the subject of the formula  $y = mx + c$ .

12) Find the value.  $\frac{8}{15}$  Of  $1\frac{1}{4}$

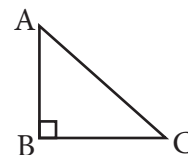
13) Find the value.  $3^2 \times 5^0$

14) ABC is a right angle triangle. select the correct answer from following relationships and underline it.

i)  $AB^2 = AC^2 + BC^2$

ii)  $BC^2 = AB^2 + AC^2$

iii)  $AC^2 = AB^2 + BC^2$

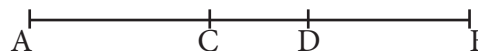


15) Fill in the blanks.

If  $AD = CB$ ,

$AD - CD = CB - \dots\dots\dots$  (axiom)

$\therefore AC = \dots\dots\dots$

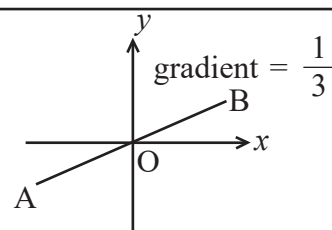


16) Height of a student is  $1.37\text{m}$ . Rounded off this value to,

i) nearest first decimal place.

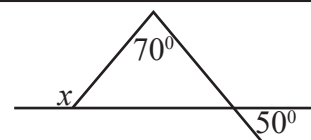
ii) nearest whole number.

17) Write the equation of the function of the graph given.

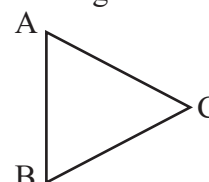


18) If the price of 12 books is Rs. 900. Find the price of 5 such books.

19) Find the value of  $x$ .



20) The figure shows the sketch of a triangular shaped land. A light post "P" needs to be fixed on AC at an equal distance from AB and BC. Indicate the position of P using the knowledge of loci



## Part II

- Answer 5 questions only.
- One Question bring 12 marks.

01) a) (i) Simplify.  $\left( 2 \frac{3}{4} \div 5 \frac{1}{2} \right)$  Of  $\frac{4}{7}$  (3 marks)

(ii) If  $\frac{2}{7}$  of a stock of frocks in a shop was sold in first day and  $\frac{1}{3}$  was sold in second day. Find the remaining stock of frocks as a fraction of whole stock. (3 marks)

b)

Shop A

Shop B

A reduction of Rs.100 on all purchases of value grater than Rs.1000

A discount of 8% is given on every bill

Two notices displayed in two shops as above using that write the answers for following questions.

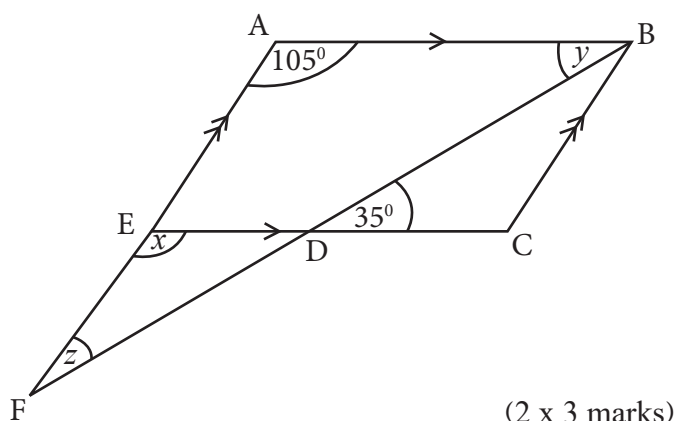
- (i) How much "Nethmi" needs to be paid when purchasing goods at price Rs.1800 from shop 'A'? (1 mark)
- (ii) How much "Nethmi" needs to be paid when purchasing above goods at same price from shop 'B'? (3 marks)
- (iii) Is it more beneficial for the customer to buy the goods from shop 'A' or from shop 'B' ? Explain with reasons. (2 marks)

02) An incomplete table of value prepared to draw the graph of the function  $y = -2x + 1$  given below.

$x$	-3	-2	-1	0	1	2	3
$y$	7	5	3	.....	-1	.....	-5

- (i) Fill in the blanks of the above table. (2 marks)
- (ii) Draw the graph of the above function. (3 marks)
- (iii) Find the gradient and the intercept of the function. (2 marks)
- (iv) Draw the graph  $y = 4$  on the above coordinate plane and write the co - ordinates of the point which intersect above line and graph (3 marks)
- (v) Write the equation of the graph which parallel to above graph and intercept is (-1). (2 marks)

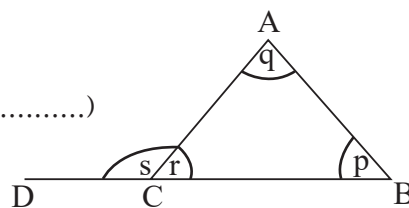
03) a) According to the information given in the figure, Find the magnitudes of the angles  $x, y$  and  $z$  (with reasons). AF and BF are straight lines.



(2 x 3 marks)

b) According to the information given in the figure, Fill in the blanks.

$$\begin{aligned}
 s + r &= \dots\dots\dots \text{(Adjacent angles on a straight line)} \\
 p + q + r &= \dots\dots\dots \text{(}\dots\dots\dots\text{)} \\
 \dots\dots + r &= p + q + \dots\dots\dots \\
 s + r - r &= p + q + r - r \\
 \dots\dots\dots &= p + q
 \end{aligned}$$



(1 x 6 marks)

04) a) (i) Simplify.  $\frac{8b^6 \times 3b^{-2}}{6b^3}$  (3 marks)

(ii) Find the value.  $\frac{(3^2)^3 \times 3^3}{3^0 \times 3^5}$  (3 marks)

b) (i) By the end of the year 2023 the population of Sri Lanka was  $2.218 \times 10^7$ . Write the above number in general form. (2 marks)

(ii) The number of dolls that were produced withing a day in a factory was 5500. Find the number of dolls produce in a month which have 30 days and write the above answer in scientific notation. (4 marks)

05) Use only a straight edge with a cm/mm scale and a pair of compasses to do the following constructions. Draw your construction lines clearly.

(i) Construct the triangle XYZ which  $XY = 8\text{cm}$ ,  $XZ = 6\text{cm}$  and  $\hat{YXZ} = 90^\circ$  (3 marks)

(ii) Construct the perpendicular bisector of XY and Name the point of intersection of the bisector and line XY as 'P'. (3 marks)

(iii) Name the point of intersection of the line YZ and above perpendicular bisector as 'O'. Taking O as the centre and OY as the radius construct a circle. (3 marks)

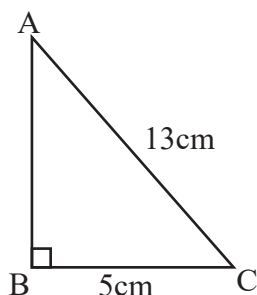
(iv) Write the length of the radius (1 mark)

(v) Write the reasons to parallel XZ and OP. (2 marks)

06) a) (i) Solve.  $\frac{4m}{5} - 1 = 3$  (3 marks)

(ii) Solve.  $a + 3b = 11$   
 $2a - 3b = 4$  (4 marks)

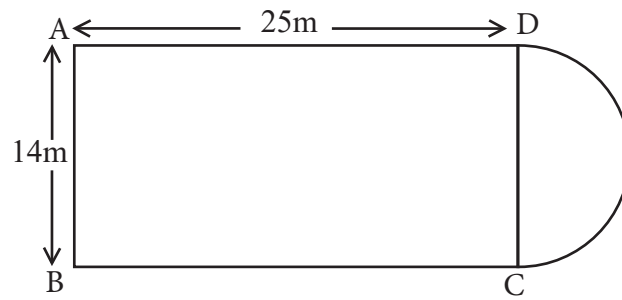
b)



(i) Name the hypotenuse side of the right angle triangle ABC. (1 mark)

(ii) If  $AC = 13\text{cm}$ ,  $BC = 5\text{cm}$  Find the length of AB. (4 marks)

07) a) A diagram of a play ground which has a semi - circular part and a rectangular part is given below.



- (i) Find the radius of the semi - circular part. (1 mark)
  - (ii) Find the arc length of the semi - circular part. (3 marks)
  - (iii) Find the perimeter of the play ground. (2 marks)
- b) Mr. Amal bought a television of Rs.64000 from a duty free shop. The amount he paid for this is 200 American dollars.
- (i) Find the exchange rate of an American dollar in Sri Lankan rupees on that day. (3 marks)
  - (ii) He bought a phone worth 125 American dollars. What is the price of the phone in Sri Lankan rupees. (3 marks)

PARCEL NO



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# විනාශ ඉලක්ක පහසුවෙන් ජයගන්න

ඕනෑම තොරතුරු ඉක්මනින්  
නිවසටම ගෙන්වා ගන්න



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