லையக் கல்வி காரியாலம் – கொழும்பு வலயக் கல்வி காரியாலம் – கொழும்பு Zonal Education Office - Colombo சேலே ல் சவேலை பரீட்சை - 2024 இரண்டாம் தவனை பரீட்சை - 2024 Second Term Test - 1 2024			
Grade 09	Subject: Mathematics	Paper: I & II	Time: 02 Hours
Name:		. Index No:	
• Answer all the	questions on this paper itself.		
Each question	carries 02 marks.		
1. The general ter	m of a number pattern is 4n-3. Find	the third term of this nu	mber pattern.
2. Convert the bir	hary number 1101_{two} into a base ten	(decimal) number.	
3. Find the value.	$1\frac{2}{3} + 2\frac{1}{6}$		
4. If a vendor earn the vendor bou	ns a profit of 20% by selling an item ght that item.	at the price of Rs 960, t	find the price at which
5. Fill in the blan	xs. $(x+2)(x+3) = x^2 + \dots$	+	
6. Factorize. <i>a</i> ²	- 7 <i>a</i> - 2 <i>a</i> + 14		

7. If AB is a straight line in the given figure, according to the information find the magnitude of x

A -

- 8. A cuboid container with a base area of 300 cm² is filled with water to a height of 15cm. What is the volume of water in liters in it?
- 9. If the price of 5 pencils is Rs.150, find the number of pencils that can be bought for Rs.240.
- The internal length, width and height of a cuboid-shaped tank are 3m, 2m, and 1m respectively.
 Find the capacity of the tank.

11. If a bookstore offers a 10% discount on every purchase, find the amount paid by a person for the books worth Rs 1500.

12. Find the value. $5^0 \times 5^2 \times 5$

13. If the following statements are true then mark ($\sqrt{}$) and if it is incorrect mark (\times) in the box in front of it.

When 340 000 is written in scientific notation, the answer is 3.4×10^5 . When 17.2 x 10^{-1} is written in general form, the answer is 0.172.

14. Solve $\frac{x-5}{5} = 3$



Part II

- Answer the first question and another 4 questions only.
- First question carries 16 marks and the other questions carry 11 marks each.
- Use extra papers for writing answers.

1)

- a) Answer the following questions based on the activity you did in the classroom about the exterior angles of a triangle during the lesson angles of a triangle.
 Shown in the figure is the PQR triangle drawn on a piece of a Bristol board. Side QR is produced to S.
 - i) Copy the figure onto your answer script and mark the interior opposite angles relevant to the exterior angle *r*, as *l* and *m*.



- ii) Draw how you pasted the two shaded cutouts of the laminas of two interior opposite angles l and *m* inside the exterior angle *r*.
- iii) Write a relationship between *l*, *m*, and *r*. Also, write the theorem related to this activity in words.
- b) Find the magnitude of each angle denoted by a lowercase letter in the following figures.



- a) An owner of an electrical appliance store bought an electric stove for Rs.10 000 to sell. He marked the price of the electric stove to earn a profit of 25% on the purchased price. A discount of 8% is given if a customer purchases the electric stove in cash.
 - i) Find the price marked to sell the electric stove.
 - ii) Find the price of the electric stove after giving the discount.
 - iii) Find the percentage of profit the owner of this shop would make if he sold a fan bought for Rs.8 000 to a customer for Rs.9 600.
 - iv) If the owner makes a profit of 25% by selling an electric kettle for Rs.15 000, find the buying price of the electric kettle.
 - b) A certain brokerage firm charges a 5% commission for selling a plot of land. How much money does the land owner get for selling land worth Rs 6 000 000?
- 3)
- i) Simplify (x-5)(x+2)
- ii) Simplify and write the answer with positive indices. $\frac{4x^{-3} \times x^{-5}}{2x^2}$
- iii) Solve $\frac{2x}{3} + 1 = 5$
- iv) Solve 3x + 4y = 43x - 2y = 16
- 4) a) Simplify $\frac{3}{5} \times (\frac{1}{2} \frac{1}{3})$

b) Sandun has used $\frac{2}{5}$ of his land for coconut cultivation and $\frac{1}{3}$ for cinnamon cultivation.

- i) Indicate the area under both cinnamon and coconut cultivation as a fraction of the total plot.
- ii) If he intends to grow tea in the rest of the plot, write that area as a fraction of the total plot.
- iii) If the area under tea cultivation is 40 perches, how many perches are there in the whole land that Sandun owns?
- iv) Sandun sold 1/15 of the total land to buy a two-wheeled tractor that he wanted. The selling price of a perch was Rs.100 000. Find the amount of money he obtained from selling that piece of land.
- Use only a straight edge with a cm/mm scale and a pair of compasses for the following constructions. Show the construction lines clearly.
 - i) Draw a straight line segment of length 8 cm and name it AB.
 - ii) Construct an angle of 90° at A such that AB is an arm.
 - iii) Construct an angle of 60^0 at *B* such that *BA* is an arm. Complete the triangle *ABC*.
 - iv) Construct the perpendicular bisector of AB and name the intersection point of it with AB as O
 - v) Construct a circle by taking O as the center and OA as the radius.

- i) In a map drawn to a scale, 5 *cm* represents an actual distance of 50 *m*. find the distance represented by 9 *cm*.
 - ii) If the price of 3 shirts is Rs 4 500, find the price of 5 such shirts.

b) The figure shows a ground that consists of a rectangular-shaped portion and two semicircular portions.

- i) Calculate the perimeter of the land.
- ii) If a wheel of radius 35 *cm* moved around the edge of the ground, show that the number of revolutions it completes is less than 150.



7)

6) a)

a) Find the length of each side denoted by a lowercase letter in the following figures.



- b) A cuboid-shaped container has a square base of area 250 cm². An amount of 4.5 *l* of water has been filled into this container.
 - i) Find the height of the water in the container.
 - ii) If the height of the water in the container is 12 *cm*, show that the volume of water filled now is $\frac{2}{3}$ of its previously filled volume.



කෙටි සටහන් |පසුගිය පුශ්න පතු |වැඩ පොත් සඟරා | O/L පුශ්න පතු | A/L පුශ්න පතු |අනුමාන පුශ්න පතු |අතිරේක කියවීම් පොත් | School Book ගුරු අතපොත්



පෙර පාසලේ සිට උසස් පෙළ දක්වා සියළුම පුශ්න පතු, කෙටි සටහන්, වැඩ පොත්, අතිරේක කියවීම් පොත්, සඟරා **සිංහල සහ ඉංගුසි වාධාණයන් ගෙදරටව ගෙන්වා ගැනීවට**

www.LOL.lk වෙබ් අඩවිය වෙත යන්න