[80	හලු ම හිමිකම ඇවර්	8க / முழுப்ப	பதிப்புரிமையு	ழடையது / All	Rights Reserve	ed]				
මා Zo ක	ல் கல்விக் வலயம் தெலை எடுப்பாது கல்விக் வலயம் தெலை எடுப்பாது கல்விக் வலயம் கல்விக் வலயம் தெலை எடுப்பாது கல்விக் வலயம் தெலல கல்விக் வலயம் தெலல கல்விக் வலயம் தெலல கல்விக் வலயம் தல் கல்விக் வலயம் தல் கல்விக் வலயம் தல் கல்விக் வலயம் தல் குடிப்பாது கல்விக் வலயம் கல் கல்விக் வலயம் தலல குடிப்பாது கல்விக் வலயம் கல் கல்விக் வலயம் தலல கல்விக் வலயம் தலல கல்விக் வலயம் தல் கல்விக் வலம் தல் குடிப்பாது குடிப்பாது குடிப்பாது கல்விக் வலயம் தல் கல்விக் வலயம் தல் கல்விக் வலம் தல் கல்விக் வலயம் தலல கல் கல் கல் கல் கல் கல் கல் கல் கல் க									
	Second Term Evaluation - 2023									
	Grade - 9		Subject -	- Mathema	atics	Paper	· I/II	Time: 2 hours.		
	Name									
\square	Part 1									
•	Answer all questions on this paper itself.									
Ŀ	Each questions carries 02 marks.									
1)	1) $1101_{two} + 111_{two}$ simplify.									
2)	The second, 1	third and t	forth terms	s of a certain	number par	tern are 8	, 11 and	14 respectively. Find the		
	general term	of that nur	nber patte	rn.						
3)	Simplify.	(x+5)(2x	K-3)							
4)	4) In the triangle ABE, AB is produced to C and AE is produced to F, $A\widehat{D}B = 105^{\circ}$, $B\widehat{E}F = 120^{\circ}$ and									
,	$C\widehat{B}E = 90^{\circ}$. Find the magnitude of $A\widehat{B}D$.									
							В	5		
							Δ	\backslash		
						A				
5)	Feetewine	1 0 m ²					D	E F		
5)	Factorize.	$1 - 9x^{-1}$								
6)	When a certai	in number	is rounde	d off to the r	nearest who	e number ,	, the num	ber 16 is obtained. When		
	that number r	counded of es for that	t to the ne	earest first de	ecimal place	, the numb	er 16.4 is	obtained. Choose the		
		a)	15.46					c) 15.94		
		b)	16.41					d) 16.38		
7)	If a broker ch	arged Rs 2	26 400 for	selling a mo	otorcycle wł	nich was w	orth Rs 6	60 000. Calculate the		
	commission p	percentage	that he ch	narged.						
8)	Find the capa	city of the	e cuboid sh	naped contain	ner.					
								$\left[-1 \right]$		
								1m		
					1			25 cm 20 cf		
					-			20 000		

Grade 9 Mathematics

9) Simplify. $\frac{5}{7} - \frac{3}{7} of \frac{1}{2}$
10) Make x the subject of the formula $ax - c = bx$
11) In the triangle CDE, CD= 5 cm and CE=13 cm. find the length of DE. 13 cm cm cm cm cm
12) If a motor vehicle moving at a constant speed travels 240 km in 4 hours, Find the time taken to travel 180 km.
13) In the given figure, PQ // ST . $P\hat{Q}R = 110^{\circ}$ and $R\hat{S}T = 120^{\circ}$ Find the magnitude of $Q\hat{R}S$. P $\qquad \qquad \qquad$
$14)\frac{2a}{3} + 1 = 7$ Solve.
15) Write the equation of the straight line in the form $y = mx + c$ which is parallel to $y = 3x - 2$ and passes through the point $(1, 4)$.
16) The length of one side of square shaped lamina is 14 cm . After four equal sectors were cut from the lamina , the remaining part is shaded. Find the perimeter of the shaded part .
17) In the figure, TP // QR, $P\hat{Q}S = R\hat{Q}T$. Name two angles equal to $P\hat{Q}T$.
18) If $a = 3 \times 10^{-3}$ and $b = 4 \times 10^{2}$ write the product of <i>ab</i> in scientific notation.

(19) Using the information given in the figure , Find the value of p and q . $q = \frac{p}{10^{\circ}}$							
20) A and B are two houses located at a distance of 40 m from each other. It is required to fix a lamp post at a distant of 30 m from each house. Using the knowledge of loci mark the location of the lamp post (D) on a suitable rough sketch.							
Part 11							
 a) You have learned four basic loci in the loci and constructions lesson. One of them is given below. Fill in the blanks with appropriate words. The locus of points which arefrom two given points is the perpendicular bisector of the line the two points. b) Using only a straight edge with a cm/ mm scale and a pair of compasses for the following constructions. (i) Draw a straight line segment such that AB = 8 cm. (ii) Find point C such that BÂC = 60° and ABC = 45°. There by construct ABC triangle. (iii) Construct the locus of a point which is equi-distant from A and B. (iv) Construct the angle bisector of BÂC. (v) Name the point of the intersection of above (iii) locus and angle bisector as O. (vi) Draw a circle with the center O and the radius AB. 							
 2) A rectangular plate ABCD of length 42 cm is shown in the figure. A logo consisting of two same semi circles with center O and X has been cut out of the plate. The remaining part is shaded . Find the radius of the semi circle. Find the breadth of the rectangular plate. Show that perimeter of the logo is less than 1.2 m. It is need to attach beads along the boundary of the logo except XY such that the distance between two beads is 2 cm. How many beads are required for this. The price of a bead is Rs 5. How much does it cost to buy beads. 							
3) An incomplete table of values prepared to draw the graph of the function $y = 3x - 1$ is given below. i. When $x = 0$ and $x = 1$, find the value of y. ii. Draw the graph of the above function on a suitable coordinate plane. 3							

- iii. A and B two points are located on the above coordinate plane. The coordinate of point A is (-1, -2). If the intercept of the graph is +1, Find the equation of the AB straight line in the form y = mx + c. Write down the relationship between that you can observe in the AB line and y = 3x - 1 line. iv. give reasons. Factorize. $y^2 + y - 42$ 4) (i) Solve. $3\left(\frac{x+2}{4}\right) = 15$ (ii) Solve the following pairs of simultaneous equations. (iii) 5a + 2b = 112b + 3a = 55) (a) In the triangle ABC in the figure, the points Q and R are located on the side AC such that $A\hat{B}Q = R\hat{B}C$. the side AB is produced to P. Find the magnitude of $A\hat{B}Q$. (i) (ii) Find the magnitude of $P\hat{B}C$. Show that $Q\hat{B}R = \frac{1}{4}R\hat{B}P$. (iii) R 0 (b) In the circle with center O, the midpoint of the chord AB is C. if $O\hat{C}B = 90^{\circ}$ AB= 12 cm and OC = 8 cm. Find the radius of the circle. 6) (a) Simplify using the knowledge of indices. $\frac{2x^{-3} \times 3x^2}{8x^3}$ ii. $2^0 \div \frac{1}{2^{-2}}$ i. (b) (i) Make "f" the subject of the formula . $c = \frac{5}{9}(f - 32)$ (ii) If c = 100, find the value of f. Suranga, who returned from a foreign trip, went to a foreign currency exchange center to exchange 500 7) American dollars in to Sri Lanka rupees. On that day the exchange rate of one US dollar was 305 rupees. i. How much rupees should Suranga receive from the money exchange. That company charges a commission of 4% for money exchange. Find the commission ii. payable and find the amount received by Suranga. Suranga checks the price of Sithumina shop to buy a printer with that money. A 10% iii. discount is offered when a printer of marked price Rs 160 000 is purchased. How much is offered as the discount. Will Suranga have enough money to buy the printer? Explane. iv.
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