First Term Examination 2015 Mathematics

Grade 08		ගණතය	r	Time: 2 hours
Name/ Index No.				
		Part I		
•	Answer all questi	ons on paper itself.		
01	Write the next two	terms of the number sequ	lence	
	-12, -15, -18, -21	,, ,		
02	The price of a 1m	of a cloth is Rs. 235. Find	d the price of 6m of clot	h.
03	Represent 46.8kg in	ı grams.		
04	$400 = 2 \times 2 \times 2 \times 2 \times 5 \times 5 \text{ find } \sqrt{400} \text{ using prime factors.}$			
05	Remove brackets o	f		
	$2(4x + 1) = \dots$	+		
06	Which multiple of 6 is 720 ?			
07	Write the pair of a	ljacent angle.	A H a b c	³ C D
08	Simplify (-3) x (-2)		

09	Write the following statement as a algebraic expression.		
	"Subtract 5y from 2x"		
10	Write the digit suitable for the blank space of 16 to be a square number		
	while the digit suitable for the blank space of 10 to be a square number.		
11	What is the supplementary angle of 104°?		
12	Write these measurements in ascending order. 1.2kg, 1000g, 1.02kg		
13	Fill in the blanks		
15			
	4x - 16 = 4 ()		
14	Find the perimeter of quadrilateral ABCD. $D \xrightarrow{3 \text{ cm}} C$		
	3cm/		
	A 6cm		
15	Write odd numbers between 85 and 95.		
16	If $x = 4$ find the value of the expression $6x = 2$		
10	If x +, find the value of the expression ox - 2		
17	Fill in the blanks by Obtaining the formula regarding the relation between the		
	number of edges, vertices and faces of solids		
	No. of faces $+$ $+ 2$		
18	Find the value of the angle a in the following diagram. 35°		

19 Simplify.
$$x^7 \div x^4$$

20 Name a pair of allied angles.
A Q B
C S
D A Q B
C $(2 \times 20 = 40)$

Part - II

- Answer first question and four other questions. 16 marks in first question and 11 marks in each other four questions.
- 01 Remind the activities done at the classroom by studying the lesson perimeter.



(i) Find the total weight of the apartment.

02

The two workers of weights 65kg and 85kg were also got in to that.

- (ii) Find the total weight of apartment now.
- (c) If a = -1, b = 3, c = 2 find the value of the expression 2a 3b 2c

- 03 The figure shows a solid with an equilateral triangular base.
 - (i) Write the name of this solid.
 - (ii) When two such solids were fixed together using the rectangular surface. What is the
 - (a) Number of surfaces of the new solid.
 - (b) Number of edges of the new solid.
 - (c) Number of vertices of the new solid.
 - (d) Is the relation between the number of surfaces, edges and vertices of this solid satisfy the Euler's relation ?
- 04 Build up the following number pattern and find the nth term.
 - (a) (i) First term $1 \ge 5 + 2 = 7$ Second term - $2 \ge 1 = 12$ Third term - $2 \ge 12$ n^{th} term - $n \ge 12$
 - (ii) Which term is 117?
 - (b) Find the following numbers.
 - (i) 15th triangular number
 - (ii) 15th square number
- 05 (a) AB and CD are straight lines.
 - (i) Name a pair of opposite angles.
 - (ii) Name the supplementary angle of AOC
 - (iii) Find the value of x according to the given figure.
 - (b) Calculate the values of angles indicated by algebraic symbols in the figure. 130°
- 06 (a) Subtract the given directed numbers using the numbered line. (+5) (-2)

(b) Simplify.
$$(-3) \times 5 \times (-6)$$

(i) $\frac{x^3 \times x^6}{x^5 \times x}$ (ii) $(a^2)^4 \div (a^3)^2$

(-2)

07 The following figure shows a piece of land is divided in to 6 pieces. The breadth of each of the pieces equals to "x" and the lengths equals to "a", "b" and "c".



- (a) (i) Find the total length of the land in terms of a, b and c.
 - (ii) Find the total breadth of the land in terms of x.
 - (iii) Build up an expression with brackets for the perimeter of the land.
 - (iv) Build up an expression with brackets for the area of the land.
- (b) Remove the brackets of the following expression and simplify. 3 (x + 2y) - 2(y + x)



72

В

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D