

Anula Vidyalaya - Nugegoda

3<sup>rd</sup> Term Test (Grade 7) 2019



Mathematics

2 hours

Index/ Name: .....

PART I

- Answer all the questions.
- Each question carries 02 marks.

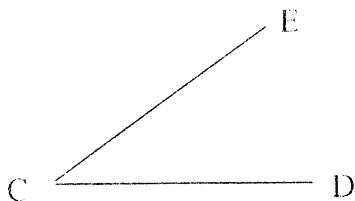
(01) Find the digital index of the following number.

37514

(02) Simplify.  $36 \div 6 - 5$

(03) Write the decade belongs to the year 1258 AD.

(04) Name the arms of the following angle.



(05) Write two unit fractions.

(06) Express  $4\frac{5}{6}$  as a improper fraction.

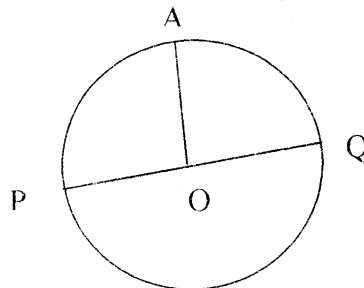
(07) Solve.  $8x = 72$

(08) Find the value.  $12.7 \div 100$

(09) In the circle with centre O

(i) Name a radius.

(ii) If  $PQ = 8\text{cm}$ , find the length of  $OA$ .



(10) Evaluate.  $(+3) + (-8)$

(11)

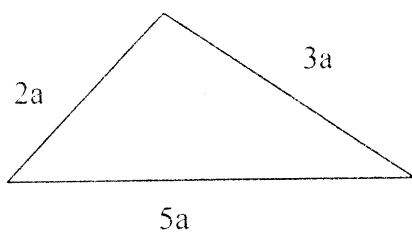
(i) Express 0.35 as a fraction.

(ii) Write the above answer in simplest form.

(12) Add.  $3 \text{ km } 750 \text{ m} + 4 \text{ km } 60 \text{ m}$

(13) Subtract.  $12 \text{ l } 500 \text{ ml} - 9 \text{ l } 750 \text{ ml}$

(14) Write a formula for perimeter  $P$  of the following triangle in simplest form.



(15) Multiply.

$$6 \text{ kg } 200 \text{ g} \times 5$$

(16) Subtract.

Years	Months	Days
8	0	15
- 6	7	22

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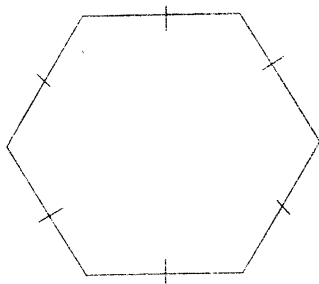
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(17) Price of a book is Rs.  $X$  and price of a pencil is Rs.  $Y$ . Nimal bought 5 books and 3 pencils. Write an algebraic expression for the total amount he paid.

(18) Expand the following expression and find its value.

$$2^3 \times 3^2$$

(19) Write the number of axes of symmetry in a regular hexagon.



(20) A map is drawn to the scale 1:200. Find the actual length represented by 7.5 cm.

## PART II

- Answer the first question and another 04 questions only.
- First question carries 16 marks and the other questions carry 11 marks each.

(01)

(a) The number of exercise books sold in a bookshop in a certain year is given in the following table.

Month	January	February	March	April	May	June
Number of books sold	125	150	200	175	225	250

(i) Represent this information in a column graph. ( 7 marks )

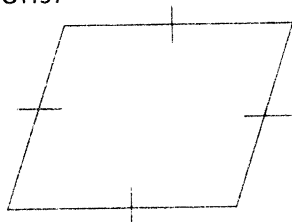
(ii) Find the total number of books sold in six months. ( 2 marks )

(b)

(i) Draw a concave polygon. ( 1 mark )

(ii) What are the characteristics of a regular polygon? ( 2 marks )

(iii) Kamal states that the following figure is a regular polygon. Do you agree with him? Give reasons.



( 2 marks )

(c) Certain amount of money divided between A & B in the ratio of 3:5. If A received Rs. 1800, find the amount of money B received. ( 2 marks )

(02)

(a) Simplify.  $\frac{8}{9} - \frac{5}{6}$  ( 3 marks )

(b) Perimeter of a square is 22cm 4mm. Find the length of a side of it. ( 3 marks )

(c) If  $a = 4$  and  $b = 3$ , find the value of  $a^2b$ . ( 3 marks )

(d) Find the value.  $(-5) + (+7) + (-2)$  ( 2 marks )

(03)

(i) Draw a cartesian plane where the x-axis and y-axis are marked from 0 to 6. ( 1 mark )

(ii) Mark the following points on the above Cartesian plane.  
A (3,6) , B (1,2) , C (2,0) , D (3,1) , E (4,0) , F (5,2) ( 6 marks )

(iii) Obtain a closed plane figure by joining them in order of the letters. ( 1 mark )

(iv) Draw the axis of symmetry of the above closed plane figure. ( 2 marks )

(v)  $(x,0)$  is the coordinates of a point on the axis of symmetry. What is the value of  $x$ ? ( 1 mark )

(04)

(a) Solve.  $2x - 3 = 11$  ( 3 marks )

(b) Price of a book is Rs. $y$  and a price of a pen is Rs.15. Rs.125 is needed to buy 2 such books and 3 pens.

(i) Build up a simple equation for the above statement. ( 2 marks )

(ii) Solve the above simple equation and find the price of a book. ( 4 marks )

(c)  $A = \{ \text{Prime numbers less than } 10 \}$

Write the elements of set A within curly brackets. ( 2 marks )

(05)

(a)

(i) Construct a regular hexagon of side length 4cm. ( 5 marks )

(ii) Construct an equilateral triangle on one side of it. ( 2 marks )

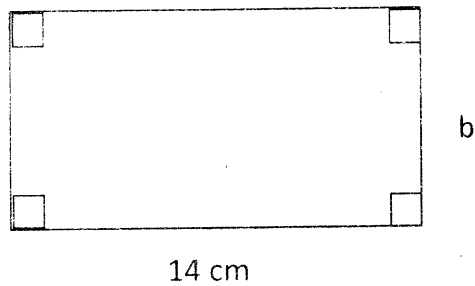
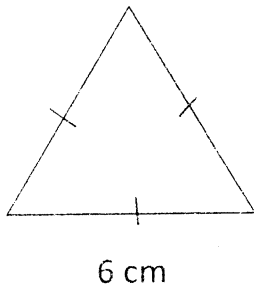
(b) Simplify.  $3x + 7y + 2x - 4y$  ( 2 marks )

(c) Write the following ratio in simplest form.

$24 : 40 : 32$  ( 2 marks )

(06)

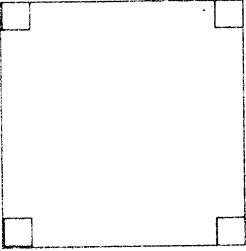
(a)



Perimeter of the rectangle is twice the perimeter of the equilateral triangle given above.

(i) Find the perimeter of the rectangle. ( 2 marks )

(ii) Find the value of b. ( 3 marks )

- (iii)  The perimeters of this square and the above rectangle are same. Find the area of this square.

( 3 marks )

- (b) Find the number of faces, vertices and edges in a regular tetrahedron.

( 3 marks )

(07)

- (a) Find the value.  $8.032 \div 8$

( 3 marks )

- (b) Add.

- (c) Multiply.

kg	g
3	500
2	700
+ 4	350

$$3\text{ l } 350\text{ ml} \times 3$$

( 2 marks )

( 2 marks )

- (d) In a map drawn to the scale 1:400, find the actual length represented by

4.5cm?

( 2 marks )

- (e) Write 36 as a product of prime factors.

( 2 marks )