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கோட்டக் கல்விக் காரியாலயம் - இரத்தினபுரி 01
Divisional Education Office – Ratnapura 01

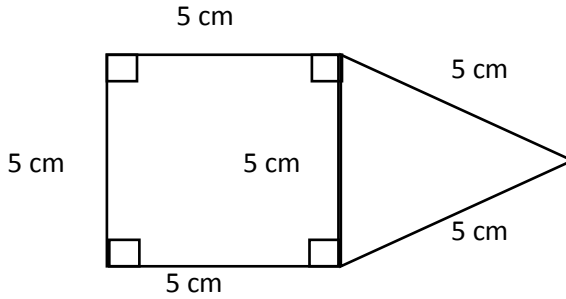|	
පළමු වාර පරීක්ෂණය - 2020 இரண்டாம் தவணைப் பரீட்சை 2020 **First Term Test – 2020**	ශ්‍රේණිය : 8 தரம் : 8 **Grade : 8**
විෂය : ගණිතය - I/II **Subject : Maths - I/II**	කාලය : පැය 2 යි நேரம் :2 மணித்தியாலம **Time : 2 Hour**

Part - I

- Answer all questions.

01) Write down the next two term of the number pattern.

7, 11, 15, 19, ……….. , ………….

02) Find the perimeter of the figure

03) I**.** The complements of 26^0 is?

II. The supplements of 26^0 is?

04) Find the value.

(i) $(-7) + 4$ 　　　　　　　　　　　　**(ii)** $(-11) \times (-3)$

05) Simplify $3(x + 4) + 5x$

06) A certain solid has 8 vertices and 6 faces and if Euler's relationship is satisfied. Find the number of faces it has.

07) Simplify. 5t 120 Kg x 10

08) $\sqrt{64}$ - $\sqrt{4}$ Find the value.

09) Express the mass given below in Kilogrammes 6t 18Kg

10) Express $4a^2$ as a power of product.

11) Simplify $4a + 5b - 3a + b$

12) Factorize $2x + 6y$

13) The area of a square shaped flower bed is 144 m^2

    (i) Find the length of a side of it

    (ii) Find the perimeter of it.

14) In a regular dodecahedron

    (i) Find the number of faces?

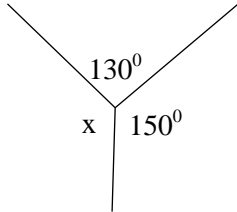   (ii) Name the shape of the faces

15) The length of a rectangle is 5cm less than twice times of its breadth. If the breadth of the rectangle is X find its length.

16)   Name two platonic solids

(i) ……………………………………………………………

(ii)……………………………………………………………

17)   Find the value of x

130^0

x 150^0

18)   If x = -1, and y = 2 find the value of $x^4 + y^2$

19)   Find the 13th term of the number Pattern 2n-1

20)   Price of a book is Rs. y. If the price increased by Rs. 5, then find the price of five books.

Part II

* Answer the first question and any other four questions.

1) Answer the following questions according to the lesson "Solid".
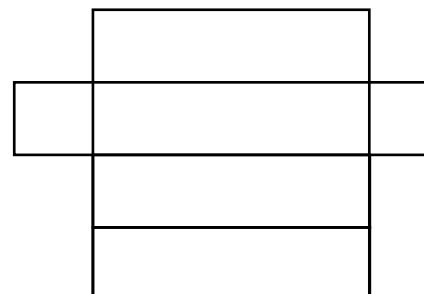   a) (i) Name the solid which can be constructed using the following net ?

   ………………………….

   (01 Marks)

   (ii) Find the

   Number of edges - ……………………

   Number of vertices - ……………………

   Number of faces - ……………………

   (03 Marks)

   (iii) Write down the Euler's relationship which satisfied the solids. (03 Marks)

   (iv) Show that the above number of faces, Vertices and edges are satisfy "Euler's relationship" (03 Marks)
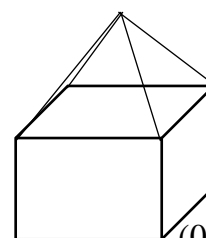
   (v) Name two solids include with curved edges (03 Marks)

   b) (i) The figure shown a Casket. Find the number of faces, Vertices and edges it has.

   a. Number of edges - ……………………

   b. Number of vertices - ……………………

   c. Number of faces - ……………………

   (03 Marks)

2) (i) Write down the first term and second term of the number pattern $2n + 3$ (03 Marks)

   (ii) The general term of the triangular numbers is $\dfrac{n(n+1)}{2}$

   a) Find the sum of the 6th term and 7th term of the triangular number pattern. (02 Marks)

   b) The sum of the 6th term and 7th term of the triangular number is a square number. Which square number is it. (02 Marks)

   (iii) a) What is the greatest odd number less than 100 (02 Marks)

   b) Which term is it. (The general term of the odd number pattern is $2n-1$) (02 Marks)

3) Simplify
   (i)   (2y +3) + (y + 2)   (03 Marks)

   (ii) (6x + 3) – (3x + 1)   (03 Marks)

   (iii) Write the following algebraic expression as product of two factors
            10x + 8y + 2z   (03 Marks)

   (iv) If a = 2, b = -1 and c = 3 find the value of 3a – 3b + c   (03 Marks)

4) (a)   Fill in the blanks.

      (i) 16 t = [＿＿＿＿] x [＿＿＿＿] Kg = [＿＿＿＿] Kg   (03 Marks)

      (ii) 8000Kg = $\dfrac{8000 \text{ Kg}}{[＿＿＿＿]}$ = [＿＿＿＿] t   (03 Marks)

  b) A Lorry of mass 14t is loaded with 300 sack of tea leaves. A mass of sack of tea leave is 25kg. Express total mass of
      (i)   Sack of Tea leaves in kg?   (02 Marks)

      (ii)   Sack of Tea leaves in mt?   (02 Marks)
      (iii)   Lorry with sack of tea leaves ?   (02 Marks)

5) (a)   Find value by using the number line.
            (- 4) – (+ 1)   (02 Marks)

  b) Simplify.

      (i) (-6) + (-7)   (02 Marks)
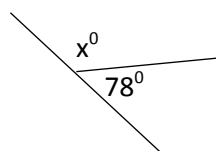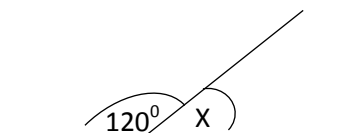   (ii) (-3) – (-2) – (+8)   (02 Marks)
      (iii)(+17) – (-1) – (-24)   (02 Marks)

  c) Fill in the blanks.
      (i) $\dfrac{[＿＿＿] \text{ x (-3)}}{-2}$ = (+12)   (02 Marks)   (ii) $\dfrac{+ 40}{(-4) \text{ x } [＿＿＿]}$ = -1   (01 Mark)

6) (a)   Find the magnitude of the angles denoted by X give the reasons for it
    (i)   (ii)

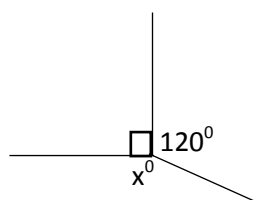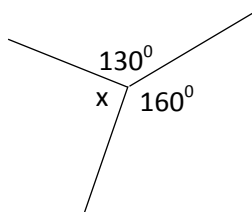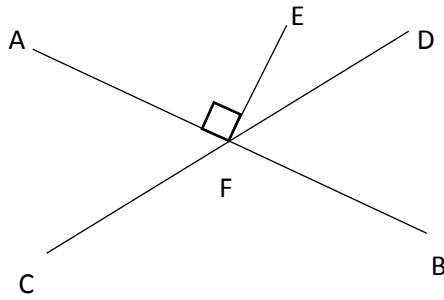   (08

 Marks)

    (iii)   (iv)

(b)

The two straight lines AB and CD intersect at the point F.

  (i)   Name a complementary angle for $\overset{\wedge}{AFE}$ (02 Marks)

  (ii)   Name a pair of supplementary angles   (01 Mark)

7)   A book, a pencil and a mathematical tools box are brought for Rs. x, Rs. y and Rs. 4x respectively.

    (i)   Write an algebraic expression for the total amount of money need to buy these three items.   (02 Marks)

    (ii)   Simplify the above algebraic expressions   (02 Marks)

    (iii)   Write an algebraic expression with brackets for 7 such parcels   (03 Marks)

    (iv)   If x = 50 and y = 20,
           According to the above algebraic expressions

         a. Find the value of a parcels
         b. Find the value of 7 such parcels   (03 Marks)