බස්නාහිර පළාත් අධ්‍යාපන දෙපාර්තමේන්තුව
மேல் மாகாணக் கல்வித் திணைக்களம்
Department of Education - Western Province

වර්ෂ අවසාන ඇගයීම
ஆண்டிறுதி மதிப்பீடு · **- 2016**
Year End Evaluation

ශ්‍රේණිය தரம் Grade	07	විෂය பாடம் Subject	Mathematics	පත්‍රය வினாத்தாள் Paper	I, II	කාලය காலம் Time	02 hours

Name :- ....   Index No :- ....

Part I

* Answer all the questions on this paper itself.
* Each question carries 02 marks.

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

   6148

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(02) Write the number 32 using index notation with base 2.

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(03) Write down the decade and the century to which the year 1856 AD belongs.

   (i) Decade -

   (ii) Century -

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(04) In the given angle.

   (i) Name the arms.

   (ii) Name the vertex.

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(05) Write suitable numbers for the blanks.

   4.05g = ... g .... mg

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(06) Solve. $3y - 2 = 7$

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(07) Find the volume of a cube with the length of ....

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(08) Harsha states that the given figure is a **concave polygon**. Do you agree with him? Give reasons.
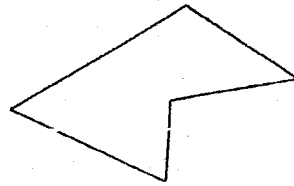
(09) Find the area of the given rectangle.

12cm

15cm
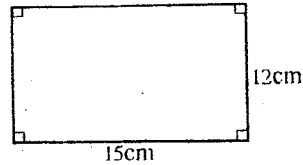
(10) From the following statements mark those which can be considered as sets with '✓' and those which cannot be considered as sets with '✗'.

(i) Talented sports persons. ( )

(ii) Provinces in Sri Lanka. ( )

(iii) Multiples of 7. between 0 and 100 ( )

(11) Find the value using a number line.
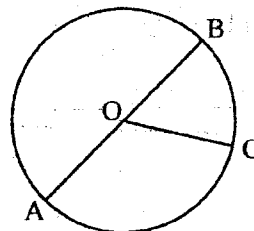
$(-2) + (+4)$

(12) Construct an algebraic expression for the following statement.

"The number which is 3 less than the half of the number x."

(13) When $a = 4$, find the value of a^3.

(14) In the circle given in the figure,

(i) Name the centre.
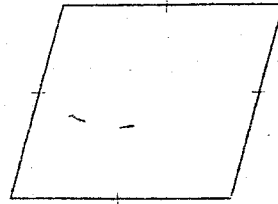
(ii) Name the diameter.

B

O

C

A

(15) Write the factors of 39.

(16) Multiply.

$2 l \ 85 ml \times 4$

(17) Is the given figure a **regular polygon**?
Give reasons.

(18) Write the following fraction as a decimal number.

$$\frac{3}{1000}$$

(19) A man gave $\frac{2}{3}$ of his land to his daughter and $\frac{5}{6}$ of his land to his son. Who received the larger portion of land? Give reasons.

(20) Write the suitable words or numbers in the blanks.

(i) Tessellations that is done using just one shape is called..

(ii) The sum of the angles around a vertex point of a tessellation created using rectilinear plane figures is ....

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Part II

* Answer the first question and another 4 questions only.
* First question carries 16 marks and other questions carry 11 marks each.

(01) (a) When making a mixture of plaster, the ratio in which lime, sand and cement are mixed is $3:5:2$

   (i) If the total quantity of the mixture of plaster is 120 pans, find the quantity of lime in pans.

   (ii) If the quantity of sand in the mixture is 40 pans, find the total quantity of the mixture in pans.

   (iii) Express the quantity of lime in the mixture as a ratio of the total mixture.

   (iv) Another 20 pans of sand and 30 pans of lime were added to 200 pans of the mixture, which was mixed to the above ratio. Find the percentage of sand in the new mixture.

   (b) The following table provides information on the number of students who sat for the G.C.E (A/L) exam from different subject streams and the number of students who passed the exam at 'Kandauda Central College' in the year 2015. Represent this information on a multiple column graph.

| Subject Stream	No of students	
	sat for the exam	passed
Science	40	25
Arts	60	55
Commerce	75	50

(02) (a) (i) Draw a Cartesian plane with the both x and y axes range from 0 to +6.

   (ii) Plot the points A (3,1) , B (5,1) , C (5,3) , D (4,5) , E (3,3) on the above Cartesian plane.

   (iii) Join the above points with straight line segments in order to obtain a closed figure.

   (iv) Write the special name given to the figure obtained by you.

   (v) Draw the axis of symmetry of the above figure.

   (b) Area of a rectangular shaped land is $72m^2$. Write two pairs of values that its length and breadth can take.

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(03) (a) If A = { Square numbers between 0 and 10 }, write down the set A by listing its elements.

    (b) (i) Write the smallest positive integer which gives 1 as the remainder, when it is divided by the numbers 2, 3, 4, 5 or 6.

       (ii) Write 180 as a product of prime factors, using index notation.

    (c) Construct the equilateral triangle ABC, with the length of a side 4.5cm.

    (d) In a regular tetrahedron,
       (i) Write the number of edges.
       (ii) Write the number of vertices.

(04) (a) A scale drawing of a rectangular shaped land is drawn to the scale 1:600. The length and the breadth in the scale drawing is 4.8cm and 3.5cm respectively. Find the actual length and the actual breadth of the land.

    (b) The perimeters of the square and the rectangle given below are same. Find the value of a.

10cm   12cm
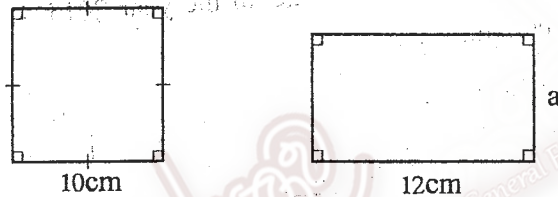
    (c) If 9m long metal wire is cut into 15 equal pieces, find the length of one piece.

(05) (a) Next to the each event given below, write the suitable letter A, B or C in your answer sheet under the relevant number.

        A   Definitely occur
        B   Definitely do not occur
        C   Random event

      (i) Rain occurring today.
      (ii) A heavy stone floating on water.
      (iii) The next passenger getting down from a bus being a woman.
      (iv) A stone which is lifted and released falling downwards.

    (b) A machine produces N milk packets during the first hour. Thereafter it produces n packets each hour. If the number of packets produced in t hours is T, construct a formula for T in terms of n, N and t.

    (c) Simplify. $5 \times (10 + 12) \div 11$

(06) (a) Subtract.

years	months	days
3	4	12
− 1	6	15

(b) Write the suitable numbers for the blanks in your answer sheet under the relevant question number.

    (i) $(-3)+(-2) = $ ....

    (ii) $(......) - (+5) = (-2)$

(c) Simplify. (i) $\dfrac{3}{4} + \dfrac{1}{16}$ (ii) $3\dfrac{1}{3} - 2\dfrac{1}{4}$

(d) Write two instruments which are in the mathematical instruments box, that can be used to draw parallel lines.

(07) (a) Find the value.

$$6.024 \div 6$$

(b) Simplify.

$$8x + 5y - 3x + 2y - 1$$

(c) Multiply.

$$7g\,27mg \times 8$$

(d) There were $10l$ of water in a large container. This whole quantity of water is poured into 8 small containers equally. Find the quantity of water in a one small container.

(e) Draw an angle with the magnitude 215^0. Name it as $P\hat{Q}R$.

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