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

වර්ෂ අවසාන ඇගයීම
ஆண்டிறுதி மதிப்பீடு   **- 2017**
Year End Evalnation

ශ්‍රේණිය தரம் Grade	08	විෂයය பாடம் Subject	Mathematics	පත්‍රය வினாத்தாள் Paper	I,II	කාලය காலம் Time	02 Hours

Name :- ....   Index Number :- ....

PART - I

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

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(01) General term of the number pattern 5, 10, 15, 20, ..., is 5n.
      Which term of it is 60?

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(02) A = {Multiples of 5 between 3 and 23}
      (i)   Write the elements of A.   A = {   }
      (ii) Write n (A).

---

(03) $15ab$ $= 3 \times 5 \times a \times b$ Find the highest common factor of
      $12a^2b$ $= 2 \times 2 \times 3 \times a \times a \times b$ $15ab$, $12a^2b$ and $9ab^3$.
      $9ab^3$ $= 3 \times 3 \times a \times b \times b \times b$

      H.C.F =

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(04)

Express the inequality shown in the number line as an algebraic inequality.

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(05) Find the perimeter of the quadrilateral ABCD.

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(06) A number line which is used to add two directed numbers is given below.

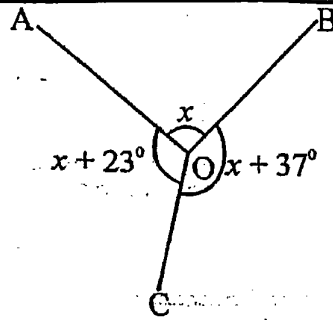| -2	+		=	

Write suitable value for the blank boxes.

(07) Find the magnitude of $A\hat{O}B$.

(08) Simplify. $9\frac{1}{11} \div 11\frac{1}{9}$

(09) There are 4 red pens, 7 blue pens and 9 black pens of same type. When a pen is taken randomly, find the probability of it being a blue pen.
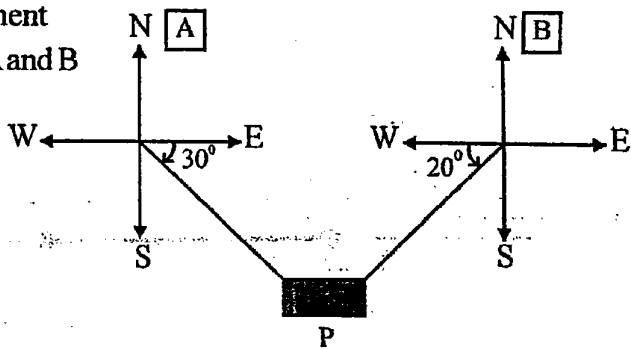
(10) When the time in (-3) time zone is 20 : 15 on Sunday,
   (i)   What is the Greenwich time?
   (ii) At that moment, in which time zone does the time becomes 03 : 15 on Monday?

(11) From the following, which statement indicates the location of P, from A and B respectively?
Select and underline.

	From A		From B
(i)	E 30° S	and	W 20° S
(ii)	S 60° E	and	S 70° W
(iii)	S 30° E	and	S 20° W
(iv)	N 30° S	and	S 70° N

(12) According to the ratio 1: 50 000, what is the actual length represented by 6cm in kilometers?

(13) Fill in the blanks using suitable words. The center of circle is O.
   (i)   The shaded region is called as a ....
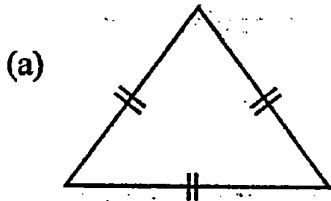   (ii) It is covered with an arc and two ....
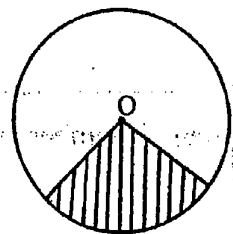
(14) 8% of a certain amount is Rs. 3200. How much is the total amount?

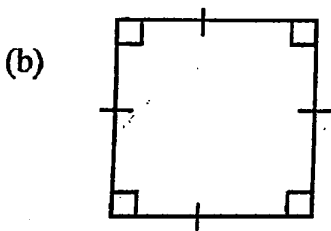(15) $900 = 36 \times 25$. Obtain the value of $\sqrt{900}$.

(16) 27t 434 kg $\div$ 11   Simplify.

(17) Underline the correct answer.

(a) Number of axes of symmetry in an equilateral triangle.

(i) 0   (ii) 2   (iii) 3   (iv) 5
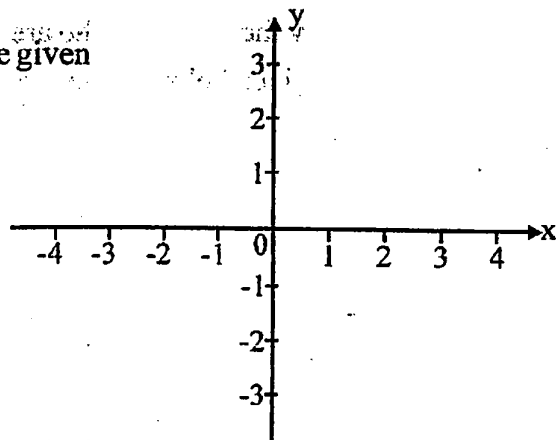
(b) Order of rotational symmetry in a square.

(i) 2   (ii) 4   (iii) 6   (iv) 8

(18) Find the value. $1 - \dfrac{3}{11}$

(19) Plot the lines $y = 2$ and $x = -3$ on the given Cartesian plane.

(20) Draw two figures that can be used to make a regular tessellation.

PART - II

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

(01) Recollect the activity that you have done on platonic solids and Euler's relation, during the lesson solids, with the assistance of your teacher.

    (i) Regular Octahedron, regular dodecahedron, regular icosahedron are examples for platonic solids. Write another two examples for platonic solids.

    (ii) Draw a net of a platonic solid you have mentioned above.

    (iii) Write down the number of edges, vertices and faces of the platonic solid, in which the net is drawn.

    (iv) How many platonic solids are there?

    (v) Write down the Euler's relationship for a solid by considering the number of faces, vertices and edges of it.
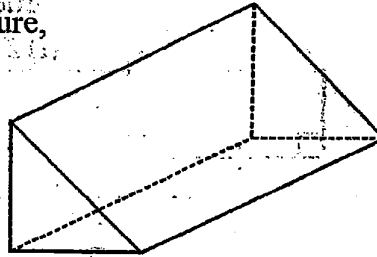
    (vi) By considering the prism shown in the figure, write down the number of edges, vertices and faces it has. Show that the above values satisfy the Euler's relationship.

    (vii) In another solid the number of vertices and the number of faces are 11 eaeh. How many edges are there in it?

(02) The distance travel by the teachers who are working at a village school, when they arrive to the school daily is given below to the nearest kilometer.

4 , 8, 3, 5, 12, 17, 15, 11, 13, 28, 24, 20, 26, 29, 28, 32, 37, 30, 46, 47, 41, 43, 58, 53

    (i) Represent the above information in a stem and leaf diagram.

    (ii) How many teachers were participated for this survey.

    (iii) What is the distance travels by the teacher who comes from the farthest place?

    (iv) What is the distance travels by the teacher who comes from the nearest place?

    (v) What is the range of the distance travel by the teachers?

    (vi) From the groups 0 - 9, 10 - 19, 20 - 29, 30 - 39, 40-49, 50 - 59, which group represents the distance travel by most number of teachers?

(03) (i) $512 \times 14 = 7168$ Using the above information. find the value of following expressions.

    (a) 5.12×1.4

    (b) 0.512×0.14

    (c) 512×140

    (d) $\dfrac{71.68}{0.512}$

(ii) Find the value. $6.578 \times 100 - \dfrac{4974}{10}$

(iii) Magnitude of the angle $A\hat{B}C$ is 35^0.

    (a) Find the compliment of $A\hat{B}C$.

    (b) Find the supplements of $A\hat{B}C$.

(04) A confectioner makes a mixture using cashew and murukku to the ratio $1 : 1$ and murukku and dhal to the ratio $2 : 1$.

    (i) Express the ratio between cashew, murukku and dhal in the mixture in simplest form.

    (ii) How many kilograms of murukku are there in 5kg of the mixture?

    (iii) How many kilograms of cashew should be mixed with 4kg of dhal?

    (iv) When the mass of dhal in the mixture is 4kg, what is the mass of the total mixture?

    (v) Ranjan says that the percentage of the murukku in the mixture is $37\frac{1}{2}$ %. Do you agree with his statement?
Give reasons.

(05) Using the straight edge and the pair of compasses do the following constructions.

    (i) Construct a straight line $AB = 10$cm.

    (ii) Mark the point C, such that $AC = 8$cm and $BC = 6$cm.

    (iii) Complete the triangle ABC.

    (iv) Measure and write the magnitude of $A\hat{C}B$.

    (v) According to the magnitudes of the angles, what type of a triangle is ABC?

    (vi) Calculate the area of the triangle ABC.

    (vii) If the perpendicular height from C to the base AB is h, find the value of h.

(06) (i) Simplify. $6a - 4b - 2a + 5b + a$

(ii) If $a = 5$ and $b = 3$, find the value of $6a - 4b - 2a + 5b + a$

(iii) Remove the brackets and simplify. $3(3p + 2q - 4r) + 2(p - 3q + 6r)$

(iv) Express the power of a product $(A \times a)^3$ as a product of powers.

(07) (a) Price of a book is b rupees and the price of a pen is Rs. 17.

(i) Build up an algebraic expression for the total price of 5 books and 3 pens.

(ii) Rs 1255 was spent to prepare 5 parcels with 5 books and 3 pens in each. Form an equation and find the price of a book.

(b) Length" breadth and height of a cuboid are 30cm, 25cm, h cm respectively. Volume of it is 15 000cm³.

(i) Find the height "h" of the cuboid.

(ii) This cuboid is filled with water, using a cup of capacity 300ml. How many cups of water should be poured to fill the cuboid completely?

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மேல் மாகாணக் கல்வித் திணைக்களம்
Western Province Edncation Department

වාර්ෂික අවසාන ඇගයීම
ஆண்டிறுதி மதிப்பீடு - 2017
Year End Evaluation

Marking Scheme

| ශ්‍රේණිය / தரம் / Grade | 08 | විෂයය / பாடம் / Subject | **Mathematics** | පත්‍රය / வினாத்தாள் / Paper | I, II |

PART - I

(01) $5n = 60$ (1)

  $n = 12$ (1) ——②

(02) (i) $A = \{5, 10, 15, 20\}$ (1)

  (ii) $n(A) = 4$ (1) ——②

(03)
  3 × 5 × a × b
  2 × 2 × 3 × a × a × b (1)
  3 × 3 × a × b × b × b
  H C F 3ab (1) ——②

(04) $-2 < x < 3$ ——②

(05) Perimeter $= 7 + 7 + 5 + 5\,cm$ (1)

  $= 24cm$ (1) ——②

(06) $\boxed{-2} + \boxed{5} = \boxed{+3}$ ——②

(07) $x + x + 23 + x + 37 = 360^0$ (1)

  $x = 100^0$ (1) ——②

(08) $\dfrac{100}{11} \div \dfrac{100}{9}$ (1)

  $\dfrac{9}{11}$ (1) ——②

(09) $\dfrac{7}{20}$ (1) (1) ——②

(10) (i) $23 : 15$ (1)

  (ii) +4 time zone (1) ——②

(11) S 60^0 E and S 70^0 W ——②

(12) 6cm ⟶ 50 000cm × 6 (1)

  ⟶ 300 000cm

  ⟶ 3km (1) ——②

(13) (i) Sector (1)

  (ii) Radius (1) ——②

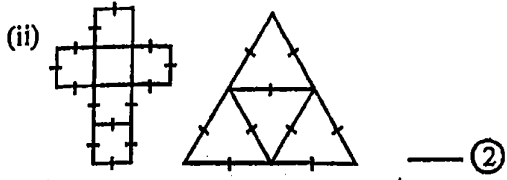(14) 1% ⟶ 400 (1)

  total amount Rs.40 000 (1) ——②

(15) $\sqrt{900} = 6 \times 5$ (1)

  $= 30$ (1) ——②

(16) 2t 494kg or 2494 kg ——②

(17) (a) 3 (1)

  (b) 4. (1) ——②

(18) $\dfrac{11}{11} - \dfrac{3}{11}$ (1)

  $\dfrac{8}{11}$ (1) ——②

(19)
  $y = 2$ (1)
  $x = -3$ (1) ——②

(20)
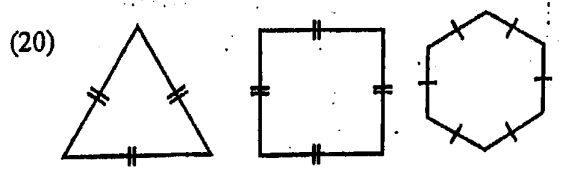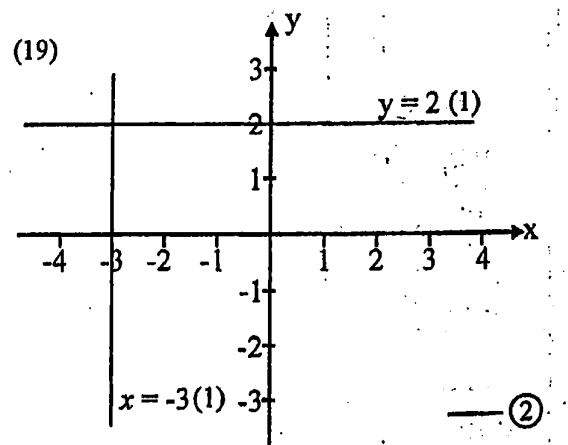
  Any two figures ——②

PART - II

(01) (i) Regular tetrahedron (1)
　　　 Cube　　　　　　(1) —— ②

(ii) —— ②

(ii) edges　= 12　　edges　= 6
　　 Vertices = 8　　Vertices = 4
　　 Faces　= 6　　Faces　= 4 —— ③

(iv) 5 piatonic soiids —— ①

(v) No of faces + No of vertlces =
　　 No of edges + 2 —— ③

(vi) No of edges + 2 = 9 + 2 = 11　(1)
　　 No of faces + No of vertices
　　　　　　　　　 = 6 + 5 = 11 (i)
　　 No of edges + 2 = No of faces +
　　 No of Vertices　　　　(1)—— ③

(vli) 11 + 11 = No of edges + 2　(1)
　　 No of edges = 20 (1) —— ②

| 16 |

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(02) (i)

Stem	leaf
0	3　4　5　8
1	1　2　3　5　7
2	0　4　6　8　8　9
3	0　2　7
4	1　3　6　7
5	3　8

—— ⑤

(ii) 24 —— ①

(iii) 58km —— ①

(iv) 3km —— ①

(v) 58 - 3　(1)
　　 55km　(1) —— ②

(iv) 20 - 29 —— ①

| 11 |

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(03) (i) (a) 5.12 x 1.4 = 7.168　(1)

(b) 0.512 x 0.14 = 0.07168 (2)

(c) 512 x 140 = 71680　(1)

(d) $\dfrac{71.68 \times 1000}{0.512 \times 1000}$ (i)

　　 140　(1) —— ⑥

(ii) 657.8 - 497.4 = 160.4
　　 (1)　　(1)　　 (1) —— ③

(iii) (a) 55° (1)　(b) 145° (1) —— ②

| 11 |

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(04) (i) Cashew: Murukku : dhal

1	1		(1)
	2	1	(1)
2 :	2 :	1	(1) —— ③

(ii) 2kg —— ②

(iii) 8kg —— ②

(iv) 20kg —— ②

(v) yes (1)
　 $\frac{2}{5}$ x 100% = 40% (1) —— ②

| 11 |

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(05) (i) Constructing AB —— ①

(ii) Marking C —— ②

(iii) Compieting the triangle —— ①

(iv) $A\hat{C}B = 90°$ —— ②

(v) right angie triangle —— ①

(vi) $\frac{1}{2}$ x 6 x 8cm² (1)
　　　 = 24cm²　　(1) —— ②

(vii) $\frac{1}{2}$ x 10 x h = 24　(1)
　　　　　　 h = 4.8cm　(1) —— ②

| 11 |

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(06) (i) 5a + b —— ③

(ii) 5 x 5 + 3 (1)
　　 25 + 3　(1)
　　 28　　(1)
　　 or
　　 6 x 5 - 4 x 3 - 2 x 5 + 5 x 3 + 5 (1)
　　 30 - 12 - 10 + 15 + 5 (1)
　　 40 - 12
　　 28　(1) —— ③

(iii) ap + 6q - 12r + 2p - 6q + 12r (1)
　　 11p (2) —— ③

(iv) A³ x a³ —— ②

| 11 |

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(07) (a) (i)　5b + 51
　　　　　 (1) (1) (1) —— ③

(ii)　5(5b + 51) = 1255 (1)
　　　 5b + 51　 = 251　(1)
　　　　　 5b　 = 200　(1)
　　　　　 b　 = 40　(1)
　　　 or
　　　 5(5b + 51) = 1255 (1)
　　　 256 + 255 = 1255 (1)
　　　　　 25b　 = 1000 (1)
　　　　　 b　 = 40　(1) —— ④

(b) (i)　30 x 25 x h = 15000 (1)
　　　　　　　 h = 20cm (1) —— ②

(ii)　$\dfrac{15000ml}{300mi}$ (1)
　　　 50 (1) —— ②

| 11 |

-02-