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Grade 7 – Second Term Test – July 2019
දෙවන වාර පරීක්ෂණය - 2019 ජූලි - 7 ශ්‍රේණිය

කාලය : පැය 2
Time : 1 hours

Mathematics
ගණිතය

Name :- .... Grade : -................ Index number:-...................
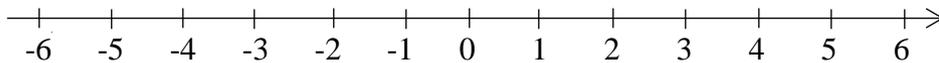

Part I

- **Answer all the questions on this paper itself.**
- **Each question carries 2 marks.**

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1.   Write the number of axes of symmetry in a rhombus.

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2.   Find the value.   (i) $56.75 \div 1000 =$

(ii) $0.765 \times 100 =$

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3.   Find the value of $(-4) + (-2)$ using the number line given.

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4.   Write down 16 as a power of 2.

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5.   Write down the expression $x \times x \times x \times y \times y$ in index notation.

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6. The mass of a packet of milk powder is 0.4 kg. Find the mass of 6 such packets.

7. Fill in the blanks using < or >
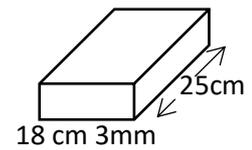
   $\frac{1}{2}$ .... $\frac{3}{5}$

8. If 7 *l* 200 *ml* of milk is poured equally into 4 bottles, find the amount of milk in one bottle.

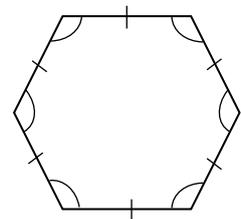9. Is the year 1900 a leap year? Give reasons to your answer.

10. The length and the breadth of a book are 25 cm and 18 cm 3 mm respectively. How much the length is longer than its breadth?

    25cm
    18 cm 3mm

11. Underline the correct answers.

    The diagram shows a (convex /concave) regular (Pentagon/ Hexagon).
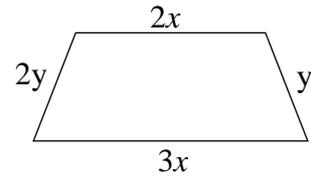

12. Find the value of a + 3b, if a = 2 and b = 5.

13. Find the area of a square shaped class room, if the perimeter is 40cm.

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14. Write down an algebraic expression for the perimeter of the given figure.

15. The price of a pencil is Rs. x less than the price of a pen. If the price of a pen is Rs. p, write down an algebraic expression for the price of 3 such pencils.

16. Find the value.

    (i) $12 + 4 \div 2 =$

    (ii) $45 - 15 \times 3 =$

17. Is the number 4897 divisible by 3? Give reasons.

18. P = {prime numbers less than 20}

    Represent the set P by a Venn diagram and write the number of elements of it.

19. Fill in the empty cages.

    (i) $(-5) + (-8\frac{1}{2})$ = [   ]

    (ii) $(+3.5) + (-0.6)$ = [   ]

20. Three bells ring at interval of 18 minutes, 24 minutes, and 36 minutes respectively. If three bells ring together at 8.00 am, at what time will they ring together again?
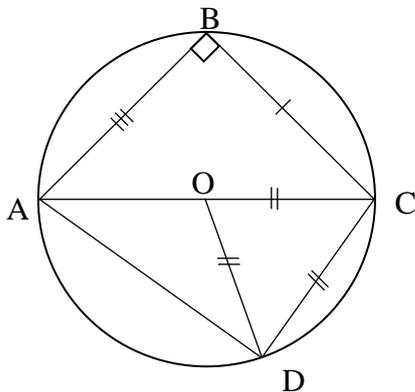
Part II

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

01. Recall the activities that you have done relevant to the lesson "Circle"

    a) Name the instrument that is used to draw a circle in the mathematical instrument box.

    b) In the diagram given below, AD is a straight line which divides the circle into two equal parts. Answer the following questions.
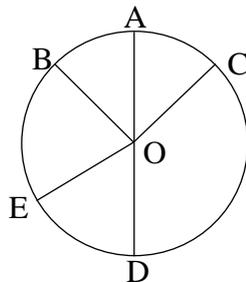

    (i) Name the center of the circle.

    (ii) Name two radii.

    (iii) Name the diameter.

    (iv) Write the relationship between BO and AD.

    c) Draw a circle of radius 3.5 cm.

    d) Copy the following table in your answer script and fill in the blanks by considering the given figure.

Type of triangle	Name of the triangle
1. Equilateral triangle	
2. Isosceles triangle	
3. Scalene triangle	
4. Right angled triangle	
5. Acute angled triangle	
6. Obtuse angled triangle	

02. a) The figure shows a bottle partially filled with water.

    (i) Express the quantity of water in the bottle as a mixed number.

    (ii) Express the above mixed number as an improper fraction.

    (iii) Express the above quantity of water in milliliters.

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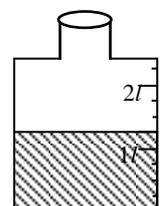
b) There was 4 *l* 200 *ml* of milk in a container. From that container, 1 *l* 650 *ml* and 800 *ml* of milk were sold for two persons respectively.

   (i) Write the total quantity of milk sold in liters and milliliters.

   (ii) Find the remaining quantity of milk in the container.

c) In a vegetable plot, tomato is cultivated on $\frac{2}{5}$ of the land and chilli is cultivated on $\frac{3}{8}$ of the land. Find the total land cultivated chilli and tomato as a fraction.

03. a) (i) Sithumini follows the following steps to find the mass of her pet cat and readings are give below.

- Total mass of Sithumini with the cat = 30kg 450g
- Mass of Sithumini without the cat = 28kg 700g

Find the mass of the cat.

   (ii) The mass of a box of biscuit is 2 kg 500 g. Find the mass of 10 such boxes.

   (iii) 2 kg 750 g of rice and 1 kg 500 g of sugar were put into a bag of mass 85 g. Find the total mass of rice and sugar with the bag.

b) Find the values.

   (i) $\quad 3\frac{1}{8} + 4\frac{2}{3}$

   (ii) $\quad 16\frac{2}{5} - 11\frac{1}{3}$

04. a) The length of a rectangle is x cm. Its breadth is 5cm less than its length. If the perimeter of the rectangle is P.

   (i) Express the breadth in terms of x.

   (ii) Construct a formula for its perimeter in terms of x.
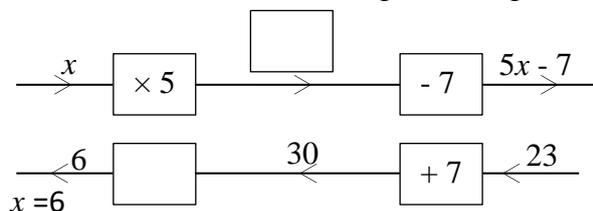
   (iii) Simplify the above formula as much as possible.

   (iv) Find the perimeter(P) of the rectangle, when x = 12cm.
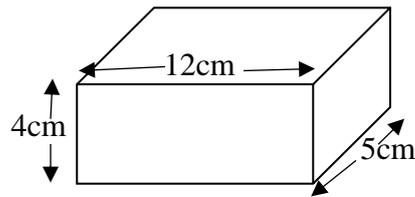
b) (i) Solve the following equation.

     $5a - 4 = 51$

   (ii) Fill in the blanks of the following flow diagram.


05. a) (i) Find the volume of a cube of side length 6cm.

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(ii) Find the volume of a cuboid of the length, the breadth and the height are 12 cm, 5 cm, and 4 cm respectively as shown in the figure.

b) ABCD is a rectangular plot of land. The length of AB is 60 m and the breadth AD is 40 m. A road of the width 5 m is adjoining on two sides of its boundaries as shown in the figure.
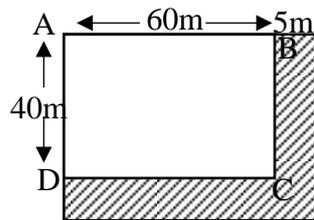
(i) Find the area of the rectangular plot of land.

(ii) Find the area of the road.

06. a) (i) Draw a straight line segment, and name it PQ. Draw another straight line segment which lies at a distance of 4 cm from PQ and parallel to it.

(ii) How many such parallel lines can be drawn?

b) (i) Draw a line segment AB of length 7 cm.

(ii) Draw an arm AD such that $\widehat{BAD} = 60°$ and AD = 5cm.

(iii) Draw a straight line segment through D parallel to the side AB.

(iv) Draw a straight line segment through B parallel to the side AD. Mark the point where the two lines intersect as C.

(v) Name the type of the figure that you have obtained.

07. (i) Express $15\frac{1}{2}$ as a decimal number.

(ii) Express 0.25 as a fraction.

(iii) Find the value of 3.45×7.

(vi) Find the value of $88.5 \div 5$.

(v) If 1.65 m of lace is required to make a design to a frock. Find the total length of lace required to sew 12 such frocks in meters.

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