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Department of Education - Western Province  
மேல் மாகாணக் கல்வித் திணைக்களம்  
Department of Education - Western Province

වර්ෂ අවසාන ඇගයීම  
ஆண்டிறுதி மதிப்பீடு - 2019  
Year End Evaluation

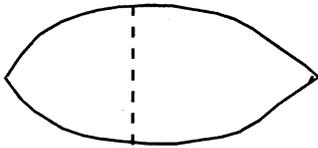
ශ්‍රේණිය } தரம் } 07 Grade }	විෂයය } பிரபந்தம் } Subject } Mathematics	පත්‍රය } வினாத்தாள் } I, II Paper }	කාලය } காலம் } 02 hours Time }
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Name : ..... Index No : .....

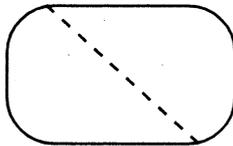
Part I

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

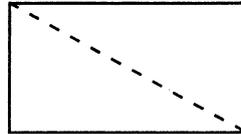
(1) From the following figures, choose the figure with a correctly drawn axis of symmetry and write down the corresponding letter.



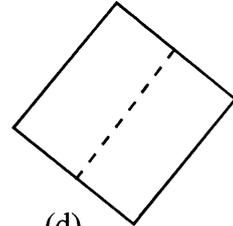
(a)



(b)



(c)



(d)

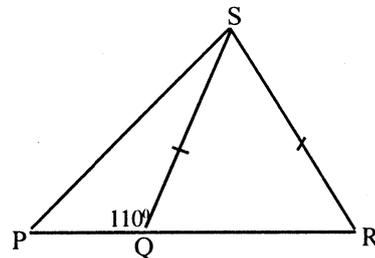
(2)  $A = \{ \text{Multiples of 3 between 0 and 15} \}$   
Represent set A in a Venn diagram.

(3) Simplify.  $6 + 15 \div 3$

(4) Express 2 g 325 mg in grams.

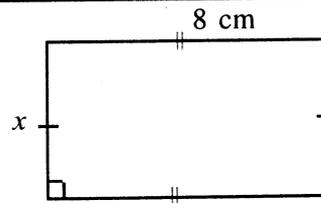
(5) According to the information given in the figure,

- What type of a triangle is QRS ?
- What type of a triangle is PQS ?



(6)  $162\boxed{\phantom{0}}$  is a 4 digit number, which is divisible by both 3 and 9. Write the digit suitable for the blank box.

(7) Perimeter of the given rectangle is 28cm.  
Find the value of  $x$ .



(8) Dineshi's birthday is on 2003. 07. 15. Her sister is 4 years 5 months 20 days younger than her. What is her sister's date of birth?

(9) Find the value.  $(-9) + (+7)$

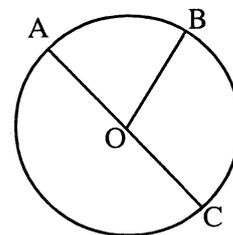
(10) Price of an apple is Rs.  $a$  and the price of an orange is Rs.  $b$ . Write an expression for the price of 3 apples and 2 oranges in terms of  $a$  and  $b$ .

(11) There are 5 vertices and 6 faces in a certain solid. Using the Euler's relation, find the number of faces in it.

(12) O is the center of the given circle.

(i) Name the diameter of it.

(ii) If the length of the diameter is 12 cm, find its radius.



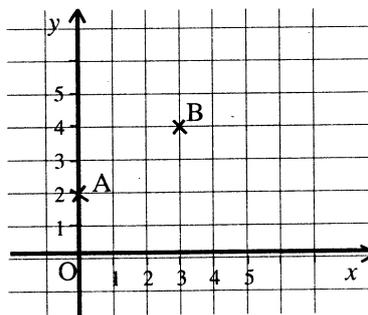
(13) Express as an improper fraction.

$$3\frac{2}{7}$$

(14) Length, breadth and height of a cuboid shaped package is 12cm, 8cm and 5cm respectively. What is the volume of it.?

(15) When making a sweet, masses of sugar, flour and butter used is 400g, 500g and 250g respectively. Find the ratio between sugar, flour and butter. Write the ratio in simplest form.

(16) What are the coordinates of the points A and B which are marked on the cartesian plane?



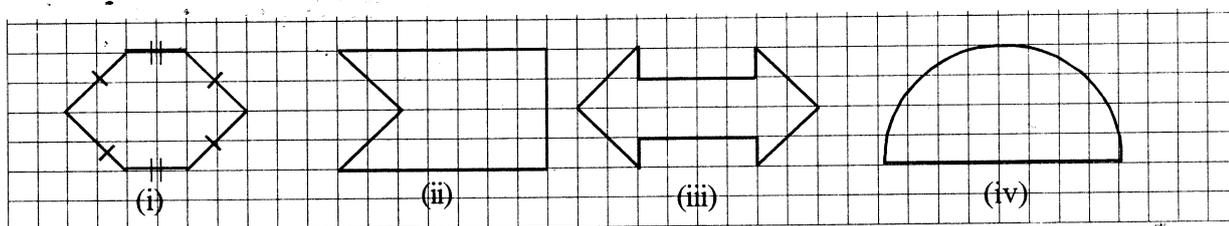
(17) A bottle of water contains  $1\text{ l } 250\text{ ml}$  of water. How much of water is there in 6 such bottles?

(18) A vendor bought 100 eggs. 8 eggs were damaged during transportation.

(i) Express the number of unbroken eggs as a fraction of total number of eggs bought.

(ii) Express it as a percentage.

(19) From the following, select and underline the figure which can be used to make a pure tessalation.

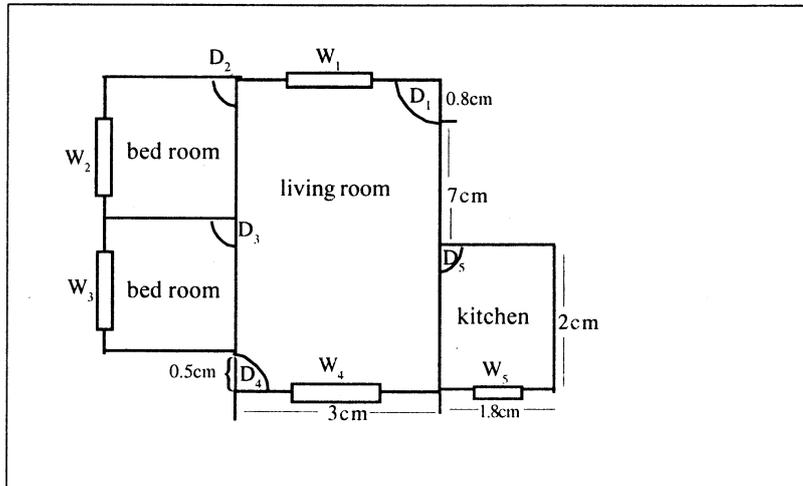


(20) When a fair coin is tossed and the side that lands up is observed, write all the possible outcomes that will occur.

## Part II

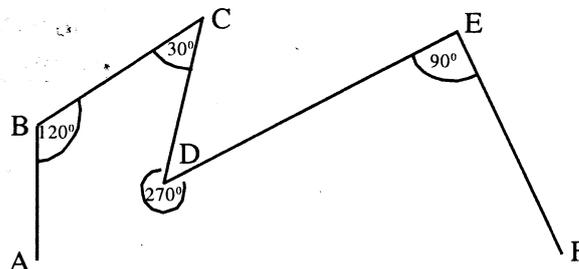
- Answer the first question and another 04 questions only.
- First question carries 16 marks and other questions carry 11 marks each.

- (1) Following is a scale diagram of a land with house which is prepared by a group of grade 7 students for an activity in the lesson "scale drawing". The scale is 1 : 200.



- (a) (i) Find the actual length of the door  $D_1$ .
- (ii) Find the actual perimeter of the living room.
- (iii) Find the actual area of the kitchen.
- (b) It is needed to add the following items to the house. Draw these items using the relevant scale in the given scale diagram. (Mark the measurements correctly)
- (i) A rectangular shaped garage with the area 8 square meters, adjoining the house.
- (ii) A bath room with the length 5m and the breadth 3m.
- (2) (a) (i) Write 243 as a product of prime factors.
- (ii) Express it as a power.
- (iii) Write in index form.  $2 \times 2 \times 2 \times 2 \times x \times x \times y$
- (b) Find the values of the following expressions where  $a = 3$  and  $b = 2$ .
- (i)  $a^2 b^3$
- (ii)  $4ab^2$

- (3) (a) Using the given diagram, fill in the blanks in the table below.



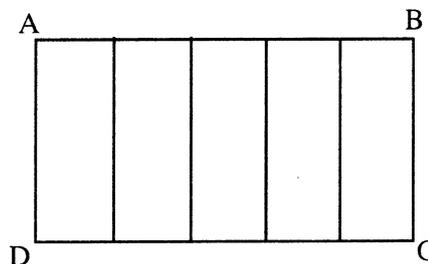
Angle	Magnitude of the angle	Arms of the angle	Type of the angle
$\hat{A}BC$	.....	.....	.....
$\hat{B}CD$	.....	.....	acute
.....	$270^\circ$	CD, DE	.....
$\hat{D}EF$	$90^\circ$	.....	.....

(b) Write an example for a static angle and a dynamic angle.

(4) (a) Price of an apple is Rs.  $x$ . Price of an orange is Rs. 25. Three apples and two oranges cost Rs. 140.

- (i) Using the above information, build up an equation.  
(ii) Solve the above equation and find the price of an apple.

(b) ABCD rectangle is divided into 5 small rectangles which are equal in area. Area of a small rectangle is  $3a$ .



- (i) If the area of the ABCD rectangle is  $A$ , build up a formula to show the relationship between  $a$  and  $A$ .  
(ii) There is another rectangle in which the area is 4 square units less than the area of ABCD rectangle. If the area of the new rectangle is  $B$ , build up a formula to show the relationship between  $a$  and  $B$ .  
(iii) If  $a = 2$ , find the values of  $A$  and  $B$  separately.

(5) (a) (i) Express as a decimal number.  $1\frac{2}{5}$

(ii) Express 2.3 as a fraction.

(b) Find the value.

(i)  $2.043 \times 4$

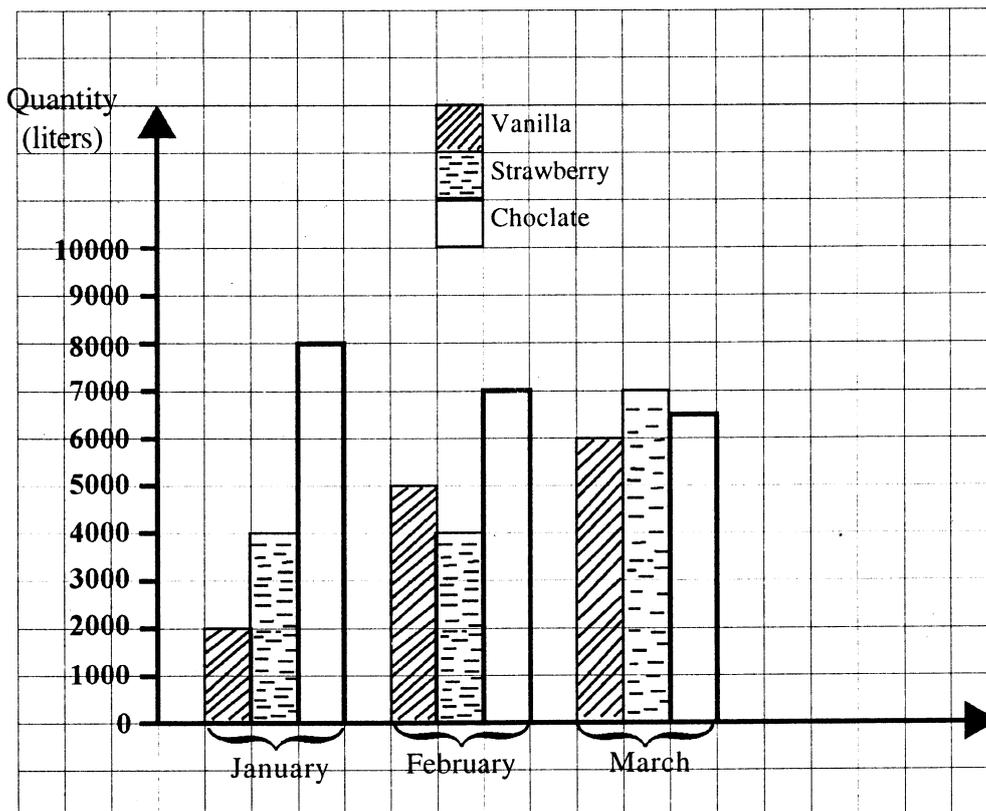
(ii)  $7.2438 \times 1000$

(iii)  $1.36 \div 10$

(iv)  $25.824 \div 8$

- (6) Using only the straight edge with the scale cm / mm and the pair of compasses, do the following constructions in a single diagram.
- Construct a circle with the radius 5cm.
  - Construct the regular hexagon of side length 5cm with its vertices on the above circle.
  - Name the hexagon as PQRSTU.
  - Create the equilateral triangle OPQ, taking PQ as one side and the point O lie on the circle.
  - Measure and write the magnitude of  $\hat{P}OQ$

- (7) Certain ice - cream manufacturing factory makes vanilla, strawberry and chocolate flavoured ice - cream. Following multiple column graph provides information on the quantity of ice - cream issued to the market by the factory during first 03 months of a year.



- Which flavour of ice - cream shows a gradual increase in demand?
- What is the quantity of chocolate flavoured ice - cream issued in January?
- What is the total quantity of ice-cream issued in February?
- What is the different between the quantity of chocolate flavoured ice - cream issued in March and the quantity of strawberry flavoured ice - cream issued in February?
- If one liter of vanilla flavoured ice - cream is sold for Rs. 80, calculate the income gained by selling vanilla flavoured ice - cream during first 3 months.