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 7

2nd Term Test - 2018
 Mathematics

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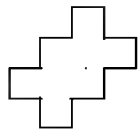
Time : 2 Hrs

Part I

- Answer for all questions in the paper itself.

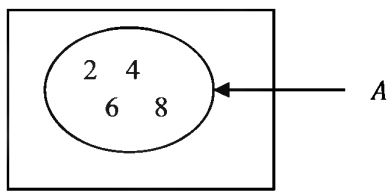
01. Express $\frac{13}{10}$ as a decimal number.

02. Draw the axis of symmetry in the diagram.



03. Simplify $10 - 6 \div 2$

04. Write down the set A in terms of a common property of its elements by which the elements can be clearly identified.



05. Find the Highest common factor of the numbers 32, 40

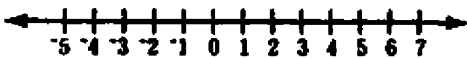
06. The power of the kandyan was acquired by English in 10th of March 1815AD. Write down,

i. the decade

ii. the century to which the date belongs.

07. A household water tank was filled with water. When $\frac{1}{4}$ of its volume was used up, what fraction of the whole tank was the remaining volume of water equal to?

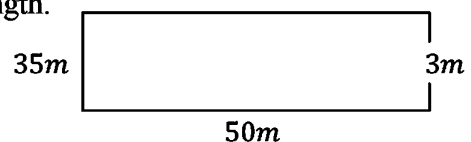
08. Find the value of $(-3) + (+5)$ using the number line.



09. Draw the angle $\hat{A}BC = 50^\circ$ using the straight edge the protractor

10. The birthday of Waruni is 1978.05.12. Find her age upto 2018.07.01

11. There is a gate which the breadth is 3m in a land length is 50m and breadth is 35m. If it is need to build a parapet wall around the land, find its total length.



12. When $5\text{ l } 850\text{ ml}$ amount of water is divided between 3 persons equally. Find the amount of water one person received.

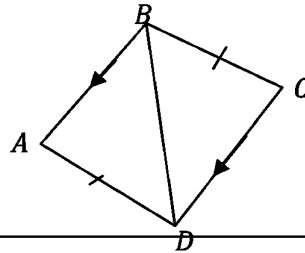
13. The masses of 3 parcels are shown in the figure. Find the total mass of 3 parcels.



14. It is proposed to lay tiles on a rectangular floor and a floor tile shaded is shown in the figure. Estimate the number of tiles to need to lay in whole floor.



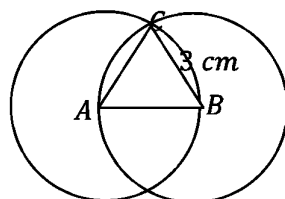
15. Name a pair of sides that not to be parallel



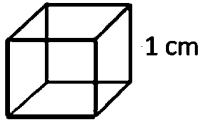
16. Simplify $10a - 3b - a + 2b$

17. 100 gingerly balls are needed to serve for Naveen's Birthday. If the weight of a gingerly ball is 15 g will 5 such type gingerly ball packets of 250 g be sufficient for that?

18. The figure depicts intersecting of two circles at C which centers are A and B. According to the given information find the perimeter of the triangle ABC.



19. A side length 1cm cube is shown in the figure' If twice its length of a side how many times volume is large cube than small one.

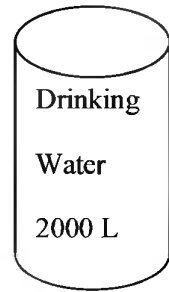


20. $37 \square 2$, If the given number is divisible by 4 and 3 without remainder then write suitable digits for the cage.

Part II

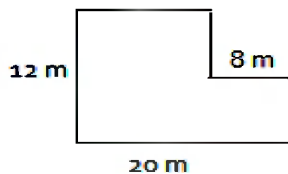
- Answer only 5 questions including the **first** question.

01. a) A 2000l capacity water tank is filled completely with water.



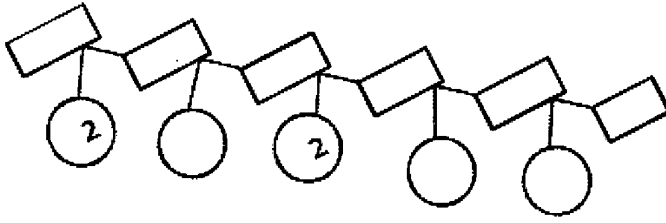
- State two standard units to use measuring volumes of liquids except the above unit. (2 marks)
- Write the relation between standard units you have written in (i) (1 mark)
- If $\frac{1}{4}$ of the water in the tank is used. Find that amount in litres. (2 marks)
- It is planned to fill the remaining water amount in to bottles containing 20l each. Find the number of bottles that can be filled. (consider the water is not wasted) (3 marks)
- If one bottle is Rs 60/- find the total price when selling every bottles above. (3 marks)

b) The figure is shown of the plan of the cultivated land.



- If it is proposed to cultivate banana in a plot of square shape land, find the length of the square that can be separated as the biggest one from the above land. (2 marks)
- If it is separated a plot of land shape of a square of side length 2m for a banana plant. Find the number of banana plants can be cultivated in the above separated land. (3 marks)

02. a) For expressing 72 as a product of a prime numbers. Complete the blank cages in the following figure.



(4 marks)

- b.i. Write 54 as a product of powers of prime bases. (4 marks)

ii. expand $x^3 y^2$ (2 marks)

iii. When $x = 2$ and $y = 1$, Evaluate $x^2 y^2$ (2 marks)

- 03.a) Write the following fractions to the ascending order (2 marks)

i. $\frac{2}{6}, \frac{2}{7}, \frac{2}{3}, \frac{2}{5} \dots \dots$ (2 marks)

ii. Simplify $3\frac{1}{2} + 7\frac{1}{4}$ (5 marks)

- b) Simplify

i. 0.785×100 (2 marks)

ii. $74.5 \div 5$ (2 marks)

04. Wenura bought 3 apples for Rs. x each and 5 mangoes for Rs .30/- each.

- a) i. Write the price of apples he bought using x (1 mark)
- ii. Write total price he spent as algebraic expression for buying apples and mangoes. (1 mark)
- iii. If the price he spent was Rs. 285 to buy apples and mangoes above, construct an equation using ' x ' (1 mark)
- iv. Find the price of an apple solving the above equation. (4 marks)
- v. Siyan spent Rs. 300 for buying equal amount of apples and mangoes. Find the number of above type of apples and mangoes he could buy. (3 marks)

05. i. Construct a circle with the centre is O and the radius is 4cm using the straight edge and the compass (2 marks)
- ii. Draw the diameter of it and name it as AB (2 marks)
- iii. Construct a parallel line 3cm away from AB and to be parallel to AB using the sets square and the straight edge. (3 marks)
- iv. Name the points as x and y which the circle is intersected by the parallel line (2 marks)
- v. Join A,B,X,Y for getting a closed figure and write the suitable name for that. (2 marks)

06. The figure is shown the lengths of several ribbon strips to used for a wall decoration.

15cm 8mm

Red colour

18cm

Blue colour

17cm 3mm

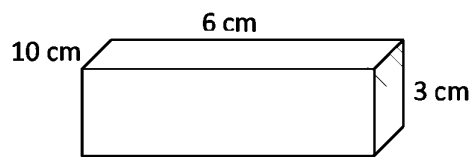
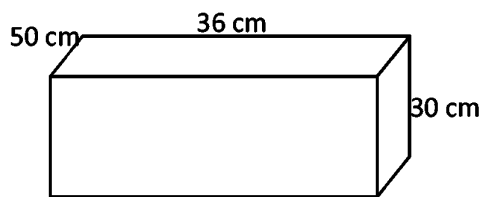
Yellow colour

I. When arranging this ribbons in ascending order what is the colour in the middle one? (1 mark)

II. If three ribbon strips are used for the decoration, find the total length of it. (2 marks)

III. Write 1.5m ribbon strip will required or not for such 10 decorations, giving reasons. (3 marks)

(b) The figure is shown that two wooden cubes those are given length breadth and heights.



- i. Find the volume of large wooden cube (2 marks)
- ii. Find the number of small wooden cube that can be cut from large wooden cube without any wastage (3 marks)