



Third Term Test - 2016

Grade

7

Mathematics

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Time: 2hrs

Part I

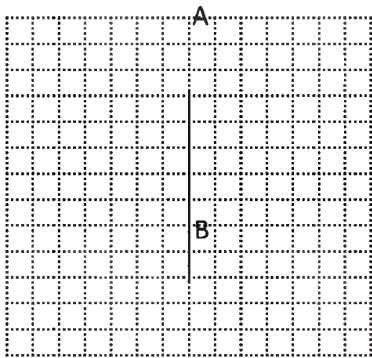
- Answer all the questions on this paper itself. 02 marks will be awarded for each correct answer.

01. Find the value of  $573 \div 10$ .

02. The duration of a course is 795 days. Find the duration of the course in Years, Months and Days.

03. Find the value  $6+6 \div 3 \times 2$

04. Draw a Bilateral plane figure in the below grid considering AB as axis of symmetry.



05. Write algebraic expression,  $\frac{y}{3} + 5p$  in words.

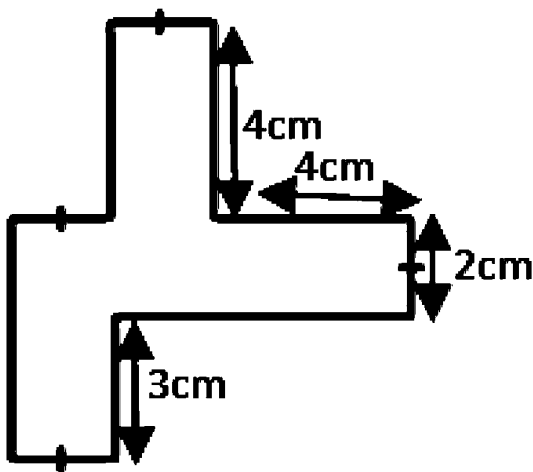
06. What is the sum of angles around a vertex point a Tessellation drawn using rectilinear plane figures?

07. Find the value of ,  $1\frac{1}{2} + 4\frac{1}{6}$

08. If 4 pineapples out of 80 pineapples of a fruit seller have spoiled, what is the percentage of spoiled pineapples?

09. Write 180 as a product of prime factors.

10. Find the perimeter of the figure according to the given data.



11. The mass of 18 biscuits with equal mass is  $864g$ , what is the mass of one biscuit in grams?

12. If  $p = 3$  and  $q = 6$ , then find the value of  $4p^2q$

13. Underline the most correct value for the given angle? ( $200^\circ$ ,  $300^\circ$ ,  $280^\circ$ )



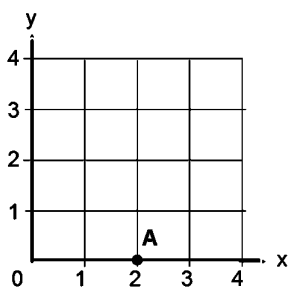
14. What is the smallest number making remainder of 7 (greater than 7) divisible by 12,18 and 24?

15. The level of water in a tank due to dry whether condition was marked as,(-4.52). Due to rain the level rose to (+3.2), how many units have the water level increased?

16. State the simplest form of ratio 40 : 65 : 90

17. To enhance the volume of a cube by 27 times, by how many times the side length of that cube should be extended?

18. Write the coordinates of point A shown in the Cartesian plane.



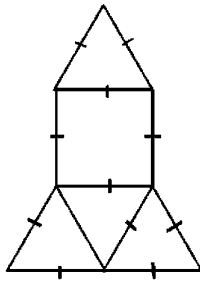
19. A patient has been prescribed 5ml of liquid dosage of medicine, a day. For how many days could the patient use a 0.15l bottle of the same medicine?

20. What is the solid object with the same shape of a Kaleidoscope with a triangle cross section that shows patters of multiple images?

## Part II

- Answer questions number 1 and 4 others.

01. a) Can you remember the lesson you learnt on solid objects in classroom. Following is a block solid object given to you by the teacher without pasting allowance.



- What solid object could be made by using the given block? (1 mark)
  - According to that solid object find the number of edges, vertices and faces.(3 marks)
  - If you make such two solid objects and paste the square faces together, how many edges, vertices and faces the new solid object would contain. (3 marks)
  - Write the Euler's relationship related with solid objects. (1 mark)
  - Prove the Euler's relationship using (i) and (ii) (2 marks)
- b) i. Name the two types of rectilinear plane figures that can be seen in the block used to create above solid object. (2 marks)
- ii. Write two features of each two plane figures. (4 marks)

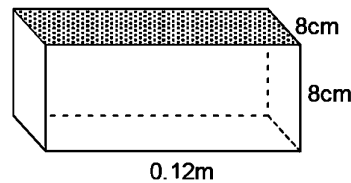
02. a) Following is a table with marks received by 4 students of Grade 7 for the 2nd Term test.

Name	Subject		
	Science	English	Maths
Seetha	55	45	50
Neetha	75	40	60
Chula	25	15	20
Reeta	40	60	45

- Depict the above information in a multiple column graph. (5 marks)
  - Who has obtained highest marks for Science? (1 mark)
  - For which subject does Neetha show weakness? (1 mark)
  - Find the Subject and the student who shows the lowest column height in the graph above. (1 mark)
- b)i. If M is the set containing all the marks of the above students, Write the set with all the elements. (2 marks)
- ii. If Chula becomes last in the class out of the four students mentioned what is the type of incident it proves.
- Definitely occurring incident
  - Definitely do not occurring incident.
  - Random incident. (1 mark)

03. Using a pair of compasses a cm/mm scaled ruler and a set square show all the drawing in a same figure.
- Construct a circle with center O and of radius 4cm. (2 mark)
  - Construct a regular hexagon with A,B,C,D,E,F as vertices on the above circle and name them (2 marks)
  - Construct the parallel straight line to line ED through F. (2 marks)
  - What is the measurement of  $\widehat{AFC}$ ? (1 mark)
  - Construct the ABP equilateral triangle by taking AB as a side and P vertices away from the circle. (3 marks)
  - If point P locates in the circle when constructing ABP triangle, mark P in the diagram. (1 mark)

04. The measurement related to length width and height of a toothpaste box is shown in the diagram.



- It is needed to paste a black paper around the Toothpaste box. Find in  $\text{cm}^2$  the of black paper. (ignore the pasting allowance) (4 marks)
- Find the volume of the box in  $\text{cm}^3$  (3 marks)
- Show that is is impossible to place 100 small cubes of  $8\text{cm}^3$  in this box. (2 marks)
- Write the length and width of the scalar diagram drawn in 1:2 ratio to mark the darken plane figure in the above box. (2 marks)

- 05.a) A price of a colouring box is two times and 50 rupees as a price of a book.

- Build on agebric expression if the price of the book is y. (2 marks)
  - If the price of a colouring box is 120, find the price of a book. (4 marks)
- b)  $\frac{a}{3} + 2 = 4$  Simplify the equation by a flow chart. (5 marks)

06. a) 72 players in a sports club play only one from the games cricket, volleyball and badminton. The ratio is respectively 2 : 3: 1

- How many volleyball players are there in the club? (2 marks)
- State the number of volleyball players as a fraction with all the players. (2 marks)
- A player says the number of volleyball players consists of 60% from all the players. Show whether he is correct or incorrect by calculating the percentage. (4 marks)

- b) i.  $1 \frac{1}{4}$  state as a decimal number. (1 mark)
- ii. Find the value of  $4 - 2 \frac{1}{4}$  (2 marks)