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மத்திய மாகாண கல்வித் திணைக்களம்
Department of Education - Central Province

Grade 07	**Year End Examination - 2019**	**32**	**E**	**I**

Mathematics	**Time : One Hour**

Name / Index no.

....
Invigilator's Signature

Important

- The question paper contains 6 pages.

- Write your Name / Index number correctly.

- Answer all the questions in part I

- Use the space provided under each question to write the answer and the working.

- Answer only 6 questions in part II

- Its compulsory to write the correct units and relevant steps.

- Marks are awarded as follows.

  Part I -
  2 marks for each correct answer for the questions from 1-15

  Part II -
  10 marks for the each question with correct answer.

For the use of examiners only

Question number		Marks
Part I	1-20	
Part II	1	
	2	
	3	
	4	
	5	
	6	
	7	
Total		

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Marked by

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Code number

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Checked by

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Code number

Part - I
Answer all the questions in the paper itself

01. Find the digital root of 5361.

02. Expand : $a^2 b^3$

03. Name,
    i. an abtuse angle.

    ii. a concave polygon in the diagram.
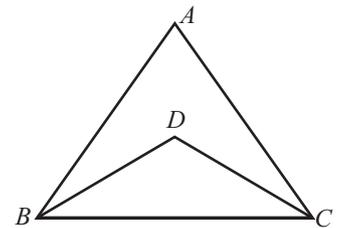
04. Denote the set A = {prime numbers from 1 to 10} in a Venn diagram .

05. Add :

	Years	Months	Days
	15	08	15
+	8	04	17

06. i. Name the plane figure used in the tessellation shown in the diagram.

    ii. What type of a tessellation is this?
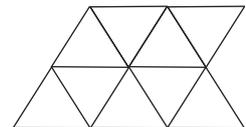
07. Simplify: $3 + 7 \times 5$

08. Underline the instruments which contain parallel edges.
   i. Set square   ii. Protractor   iii. Straight edge

09. Simplify : 5 m 50 cm × 3

10. What the diameter of a circle of radius x ?

11. Simplify $(+4) + (-5)$ using the number line .
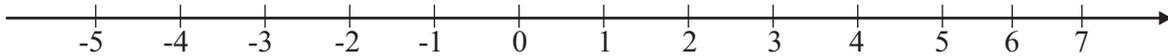
12. 50 l 25 ml of bee honey was divided equally among three people, find the volume of honey received .

13. Find the value of 0.01 x 100.

14. The glass tank shown in the figure in the shape of a cube is half filled with water. Find the volume of water in the container.


10 cm
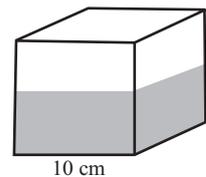
15. A ribbon of length 12 m is cut into three pieces in the ratio 1 : 2 : 3. Find the length of the shortest piece.

16. A solid that satisfies Euler's relation has 5 faces and 8 edges. Find the number of vertices using the Euler's relation.

17. Fill in the blank boxes :

$$0.8 = \frac{\boxed{}}{10} = \frac{\boxed{}}{100} = \boxed{} \%$$

18. Write all the possible outcomes when an unbiased coin is tossed once.

19. The diagram shows a sketch of a scale diagram of a rectangular land, which is drawn to the scale 1:1000. Find the actual length and breadth of the land.

7.5 cm

10 cm
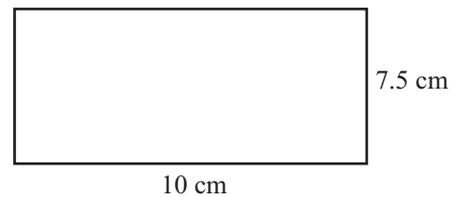
20. Measure and write the magnitude of $P\hat{A}B$.

P

A

B
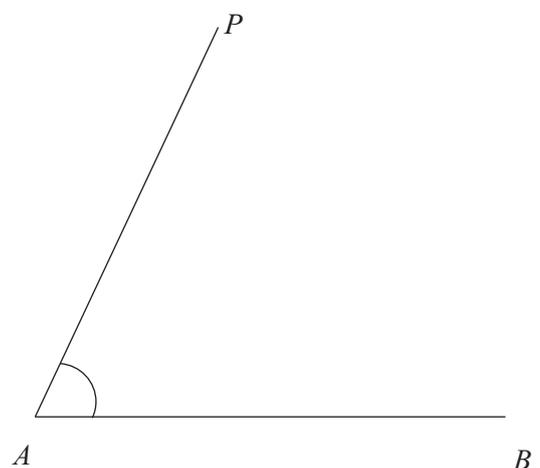
Part - II

❖ **Answer six questions only.**

(01) a) i. Fill in the blank box with a suitable digit to get a three digit number divisible by 6.

ii. Write 72 as a product of prime numbers.

iii. Write answer the obtained in (ii) above in index form.

b) In a certain dancing group, 60 students wear pink dresses and 24 wear blue dresses. If they are to be placed in such a way, that the students who wear the same colour are in the same row. Using the knowledge of highest common factor, find the maximum number of students that can be in a row.

(02) The following incomplete multi-column graph shows the runs scored by the teams A and B in the first three overs of a one day cricket match.
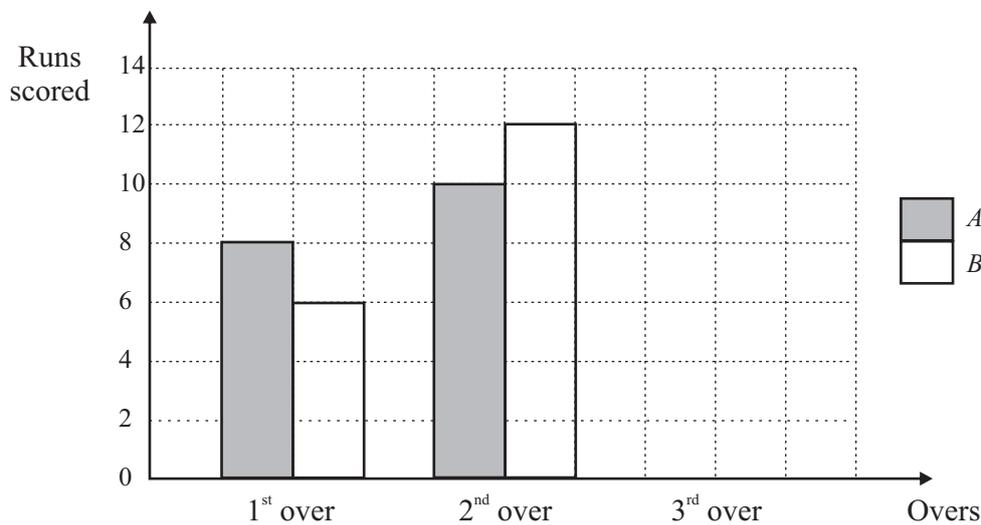

i. Copy the table given below into your answer script and fill in the blanks.

Team	1st over	2nd over	3rd over
A	....	....	8
B	....	....	5

ii. Copy down the multi-colomn graph and complete it.

iii. What is the difference of runs scored by the teams A and B in the second over?

iv. Find the total of the runs team A scored in fist three overs.

v. Amith says that at the end of the three overs, the team that scored highest number of runs is A. Giving reasons, state weather the statement is correct.

(03) a) i. Fill in the blanks using the suitable from symbol >, < or = $4\frac{3}{5}$ .... $4\frac{3}{8}$

    ii. Add : $1\frac{3}{8} + \frac{2}{5}$

  b) i. A trader sold $\frac{1}{2}$ of a pumkin on the first day and $\frac{1}{4}$ of it on the second day. What fraction of the whole pumkin was sold in both the days?

    ii. If the mass of the pumkin sold on the first day was 3 kg 500 g find the total mass of the pumkin.

    iii. Find the mass of the part remained after selling in the fist two days.

(04)   i. Construct a circle of radius is 5 cm.
    ii. Construct a regular hexagon of side length 5 cm on the circle and name it as *ABCDEF*.
    iii. Join *A*, *C* and *E* in order to obtain the triangle *ACE*. Measure and write the length of one side of the triangle.
    iv. When classified according to the sides , what type of a triangle is *ACE*?
    v. Name two isosceles triangles in the figure.

(05) The diagram shows a sketch of a land.
    i. What is the length of the side *BC*?
    ii. Find the perimeter of the land.
    iii. Find the area of the land.
    iv. The land owner intends to divided the land between his two children equally. Copy this diagram in your answer script and using dotted lines, show how the land should be divided.
    v. When the land is divided as mentioned above, write a suitable name for the shape of one part.
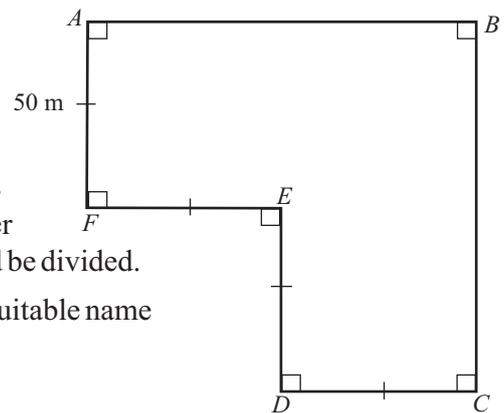
(06) a) i. Simplify: $3a + 2b + a + 4b$.

    ii. Solve : $5x + 3 = 13$.

  b) Amara bought 5 books each cost Rs 5 and 3 pens worth Rs y each.

    i. Build up an algebraic expression for the amount Amara spent.

    ii. Write the balance received when Rs 500 was given to the trader in order to pay the above bill, as an algebraic expression.

    iii. Find the amount remained if $x = 50$ and $y = 15$.

(07) i. Draw a suitable Cartesian plane and plot the following points.
         $A(2,2)$, $B(4,8)$ and $C(6,2)$
    Join the points in order to obtain a closed figure.
    ii. Draw the axes of symmetry of the figure.
    iii. Produce the axis of symmetry to intersects the *x* axis and mark the point of intersection as *P*.
    iv. Write the co-ordinates of point *P*.