## Mn / Sithyvinayakar Hindu College

(National School - Mannar)
First Term Exam - 2019
Mathematics


Index No Time - 2 Hours

## Part - 1

- Anwer all question 1 to 20 on this paper itself
- Each questions carries 02 marks.

1. How many symmetrical axes are there in a square
2. What is the value of 3 in the number 53428
3. $\mathrm{A}=\{$ Prime numbers from 1 to 10$\}$, Write the set A as listing its elements
4. Simplify $13+7 \times 5$.
5. If the number $73 \square$ is divisible by 3 , what is the largest digit suitable for the box
6. Give the prime factor of 60
7. Write $a \times a \times a \times b \times b \times b \times b$ in indices form
8. Is AD 2100 a leap year? Give reasons
9. Find the value of $2^{6}$
10. What is the digital root of the number 69775?
11. Which decade and century is the year 2019?
12. Find the value by using the number line.
13. If Kumar born in 2004.05.15, Find the age of Kumar in 2017.06.18
14. There are 8 boxes of pen each has 12 pens. If it shared 6 Pens per a student, How many students will receive the pens?
15. Select 10 number which is divisible by 4 and 6 without remidder from the following number. 2051, 21051, 12530, 5232
16. If $x=3$, Find the value of $7 x^{2}$
17. Find the Highest Common Factor of 12 and 18
18. Measure and write down the magnitude of the angle $P \widehat{Q} R$

19. Write down 2 instances where you can observe angle which are static in nature.
20. The dotted line indicates the axis of symmetry. Draw and complete the bilaterally symmetric figure


## Part II

- Answer the five questions only.

1. a. Simplify
i) $8 \times 9-40$
ii) $(352+275) \div 3$
iii) $12+5 \times(10-3) \div 7-10$
b. Kumuthini had Rs. 1500 .She bought 2 skirts for Rs. 225 each and 3 blouses Rs. 200 each.
i) Give the amount of money Kumuthini spent as a expression written by using mathematical symbols.
ii) Find the amount of money remaining?

$$
2+2+2+3+3=12 \text { Marks }
$$

2. a. If $A=\{$ letters in the word "SITHYVINAYAKAR"\}
i) Write the set A by listing its elements.
ii) How many elements in the set A
iii) Represent the set A by a Venn diagram.
b. Write the set B in term of common property of its elements?


$$
3+3+3+3=12 \text { Mark }
$$

3. a)Consider the number 37508
i) What is the digital root of the given number?
ii) Is the given number divisible by 3 ?
iii)Is the given number divisible by 4 ? Given reason.
b) Find the Least Common Multiple (L.C.M) of 24, 36, 60 by method of division?
c) Find the Highest Common Factor (H.C.F) of 24, 36, 60 by writing each number as a product of its prime factor?

$$
1+1+2+3+3=12 \text { Marks }
$$

4. a)Addition
i. Day Hour
$17 \quad 15$
$+10 \quad 10$
b) Subtraction
i.

| Day | Hour | Minute |
| ---: | :---: | :---: |
| 10 | 08 | 32 |
| +04 | 10 | 10 |

$\qquad$
ii. Day Hour Minute
$\begin{array}{lll}3 & 20 & 18\end{array}$

| +4 | 17 | 15 |
| :--- | :--- | :--- |

ii. | Day | Hour | Minute |
| :---: | :---: | :---: |
| 7 | 03 | 15 |
| +2 | 10 | 20 |

c) In 209.03.25 Thilina`s age is 14 years. His brother Thisara is 2 years 5 months and 10 days younger. i) What is the Thilina`s date of birth?
ii) What is the Thisara`s date of birth?

$$
2+2+2+2+2+2=12 \text { Marks }
$$

5. a) Fill in the blanks in the following table

| Number | Index notation | base | index |
| :---: | :---: | :---: | :---: |
| (i) 125 | $\ldots \ldots \ldots$ | 5 | $\ldots \ldots \ldots \ldots$ |
| (ii) $\ldots \ldots$. | $3^{5}$ | $\ldots \ldots \ldots$. | 5 |

b)
i. Write 81 in index notation with 3 as the base
ii. Write the number 36 as a product of powers with prime numbers as bases
iii. Find the value of $a^{2} b$ by substituting $a=3$ and $b=5$

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3+2+2+2+3=12 Marks
```

6. a) Complete the table

| Angle | Type of angle | Name the angle | Arms | Vertex |
| :--- | :--- | :--- | :--- | :--- |
| A |  |  |  |  |
|  |  |  |  |  |

b) In the figure
i) Measure and write down the magnitude of acute angle.
ii)Find the magnitude of reflex angle

c) Simplify.
i. $(-5)+(+3)=$
ii. $(-8)+(-4)+(+7)=$
d) Put the suitable number in the box

$$
(-10)+\square+(-3)=(-7)
$$

