# SECOND SUMMATIVE EVALUATION [SA-2] MARCH 2020 <br> MATHEMATICS 

$8^{\text {TH }}$ STANDARD
TOTAL TIME: $1 \frac{1}{2} \mathrm{hr} . \quad$ MAX.MARKS:40
1 Answer the following by choosing suitable answer

1) $\left(a^{m}\right)^{n}$ is equal to
A) $a^{m+n}$
B) $a^{m n}$
C) $a^{m-n}$
D) $a^{m^{n}}$
2) $(0, y)$ which is the co-ordinate of Cartesian graphs. The point lies on
A) $X$-axis
B) Origin
C) III Quadrant
D) $y$-axis
3) In a figure all sides are equal therefore diagonals bisect each other at
A) Straight angle
B) Right angle
C) Not always Right angle
D) some time acute angle.

4) Which of the following is not correct formula of simple interest .
B) $P=\frac{100 \times \mathrm{I}}{\mathrm{TXR}}$
B) $T=\frac{100 \mathrm{XI}}{\mathrm{PX} \mathrm{R}}$
C) $I=\frac{100 \times \mathrm{P}}{\mathrm{TX} \mathrm{R}}$
D) $R=\frac{100 \mathrm{XI}}{\mathrm{P} \mathrm{X} \mathrm{R}}$

## II Answer the following questions:

$1 \times 4=4$
5) Write the co-ordinate point of $A, B, C$ and $D$ from this graph
6) State SSS postulate for congruency of triangle.
7) In a school of 800 students, 42 percent students are Girls find the number of Girls in the school.

8) Find the value of $10^{0}+2^{3}+1^{5}$

## III Answer the following questions:

9) A person insures ₹ $26000 /$ - through an insurance agent. If the agent gets ₹ $650 /$ - as the commission. Find the rate of commission ?

OR
Soumya bought a bicycle for ₹3750 and spent ₹250 on its repairs. He sold it for ₹ 4400 . Find her Profit percentage or Loss percentage ?
10) Vaishnavi brought a Musical instrument at Marked price $₹ 12,000$, GST(Tax) for this instrument is fixed $12 \%$, How much she has to pay to purchase this instrument. ?
11) Draw the histogram for the following frequency distribution.

| Class-Interval | $0-10$ | $10-20$ | $20-30$ | $30-40$ | $40-50$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Frequency | 6 | 8 | 12 | 4 | 10 |

12) A field is in the form of a parallelogram, whose perimeter is 450 m and one of its sides is larger than the other by 75 m Find the lengths of all side.
13) In the figure, PQRS is an isosceles trapezium; $\angle S R P=30^{\circ}$, AND $\angle P Q S=40^{\circ}$.Calculate the angle $\angle R P Q$ and $\angle R S Q$

## OR

In a trapezium $A B C D$ with $A B \| C D$, it is given that $A D$ is
 not parallel to $B C$. Is $\triangle A B C \cong \triangle A D C ?$ Give reasons.
IV Answer the following questions:
$3 \times 3=9$
14) Use the law of exponents and simplify.

$$
\frac{3^{-4} \cdot 10^{-5} \cdot 125}{5^{-3} \cdot 6^{-4}}
$$

OR
Simplify: $\quad\left(\frac{b^{-3} \quad b^{7}\left(b^{-1}\right)^{2}}{(-b)^{2}\left(b^{2}\right)^{3}}\right)^{2}$
15) Construct a triangle $\triangle \mathrm{ABC}$ whose perimeter is 14 cm , and whose sides are in Ratio

$$
2: 4: 5
$$

16) Draw a graph for the following linear equation.

$$
y=3 x-2
$$

## V Answer the following questions

17) Calculate the mean for the following frequency distribution:

| C-I | $5-9$ | $10-14$ | $15-19$ | $20-24$ | $25-29$ | $30-34$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Frequency | 3 | 4 | 8 | 10 | 3 | 2 |

18) Prove that "In a triangle the angles opposite to equal sides are equal."

## VI Answer the following questions

19) In this prize distribution podium $2^{\text {nd }}$ place step is cubic in shape of 30 cm edges. First place step is joined such two cubic's. The third place step is a cuboidal shape of 30 cm length 30 cm breadth and 15 cm height. Find the surface area to paint the color for this podium except the base of the podium.?

