2022-23
CLASS: $8^{\text {th }}$ Standard
Max Marks :40
SUBJECT-MATHEMATICS
Time :2.Hours

## I. Four alternatives are given for each of the following questions. choose the correct answer along with the alphabet : <br> $20 \times 1=20$

1. The cube of 4 is
a)27
b) 216
c )12
d) 64
2. If $a^{m} \div a^{n}$ is equal to $\qquad$
a) $a^{m-n}$
b) $\left(a^{m}\right)^{n}$
c) $\frac{a^{m}}{a^{n}}$
d) $a^{m+n}$
3. The cube root of 216 is $\qquad$
a) 4
b) 3
c ) 6
d) 2
4. Multiplicative inverse of $2^{-3}$ is $\qquad$
a) $\frac{1}{8}$
b) $-\frac{1}{8}$
c ) 6
d) 8
5. Place value of 5 in 9526 is $\qquad$
a) 500
b) 5000
c ) 50
d) 5
6. -19 is a $\qquad$ number
a)whole
b) integer
c ) natural
d) irrational
7. $a+b=b+a$ the property of set of whole number on additions
a)associative
b) commutative
c )closure
d)distributive
8. The number which represents the expanded form of $3 \times 1000+4 \times 10+9 \times 1+\frac{4}{100}$
a)3049.04
b) 3049.4
c $) 349.4$
d) 349.04
9. The co-ordinate of of origin is $\qquad$
a) $(1,1)$
b) $(0,0)$
c ) $(2,0)$
d) $(0,4)$
10.Volume of cylinder is
a) $\frac{1}{2} \pi r^{2} h$
b) $\pi r^{2} h$
c ) $\pi r h$
d) $2 \pi \mathrm{rh}$
10. The percentage of $\frac{1}{2}$ is $\qquad$
a) $75 \%$
b) $80 \%$
c ) $50 \%$
d) $40 \%$
11. The name of solid
 is $\qquad$
a)cuboid
b) pyramid
c ) cylinder
d) cube
12. The common factor of $12 x$ and 48 is $\qquad$
a)4
b) 4
c ) 12
d) 6
14.If a coin is flipped in the air , the probability of getting head is $\qquad$
a)0
b) $\frac{1}{2}$
c) 2
d) $\frac{3}{4}$
15.If $x \& y$ are directly proportional then which of the following is correct
a) $X+Y=$ constant
b) $X-Y=$ constant
c ) $X Y=$ constant
d) $\frac{X}{Y}=$ constant
16.If 300 kg of sugar cost 6000 Rs then the cost of 125 Kg sugar is ......
a) 1200 RS
b) 2400 Rs
c ) 3200 Rs
d) 4200 Rs
13. The area of rectangle is $\qquad$
a) $\pi r^{2}$
b) $1^{2}$
c ) $1 \times b$
d) $\frac{1}{2} \mathrm{IXb}$
14. The ratio of 50 Paise to 5 Rs is. $\qquad$
a) $10: 1$
b) $1: 10$
c ) 1:100
d) $100: 1$
15. $\qquad$ .is the smallest number in the set of whole number
a) 2
b) 0
c ) -1
d) 3
20.The least number to be multiplied to 256 to make a perfect cube is.
a)2
b)3
c) 5
d) 7

## II Solve the following :

21. Factorise the expressions $25 m^{2}-30 m-9$

Or
Factorise the expressions and divide them as directed $\left(m^{2}-14 m-32\right) \div$

$$
(m+2)
$$

22. A loaded truck travels 14 Kmin 25 min with a speed remains same. How for can it travels in 5 hours ?

Or
Find curved surface area of cylinder whose radius is 21 cm and height 12 cm
23. Find the cube root of 729 by factorsation method
24. Evaluate $\frac{8^{-1} \times 5^{3}}{2^{-4}}$.

Or
Simplify $\left(2^{-3}+3^{-2}+4\right)$
25. Draw a pie chart showing the information. The table shows the people present in a city .

| Colours | Number of <br> people |
| :---: | :---: |
| Men | 120 |
| Women | 60 |
| Boys | 40 |
| Girls | 20 |
| Total | 240 |

or
Draw a histogram of the following table

| Class interval | frequency |
| :---: | :---: |
| $0-10$ | 12 |
| $10-20$ | 5 |
| $20-30$ | 18 |
| $30-40$ | 4 |
| $40-50$ | 10 |

## IV. Solve the following question

26. Vasudevan invested Rs 60000 at an interest rate of $12 \%$ per annum compounded half yearly. What amount would he get after 1 year?
Or

The cost of an article was Rs 15500 .Rs 500 were spent on its repairs .If its sold for a profit of $15 \%$.Find selling price of an article .
27. There is pentagonal shaped park as shown in the figure .For finding its area Jyoti and Kavita divided in it in two different ways.find the area of figures in both ways.



Jyoti's diagram


Kavita 'diagram

V .Solve the following question
$1 \times 4=04$
28. Draw a graph for the following tables with suitable scales on the axes .

| Number of apples | 2 | 4 | 6 | 8 | 10 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Cost (in Rs) | 10 | 20 | 30 | 40 | 60 |

a) what is the cost of 5 apples by using graph
b) How much apples will purchase for 50Rs?

