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

1. The standard form of 0.0000475 is $\qquad$
a) $4.75 \times 10^{5}$
b) $4.75 \times 10^{-5}$
c) $4.75 \times 10^{6}$
d) $4.75 \times 10^{-6}$
2. $a^{2}-b^{2}$ is equal to $\qquad$
a) $a^{2}+b^{2}$
b) $(a+b)(a+b)$
c) $(a+b)(a-b)$
d) $(a-b)(a-b)$
3. The value of $5^{-3}$ is $\qquad$
a) $\frac{1}{25}$
b) $\frac{1}{15}$
c) 25
d) 15
4. By what number should 256 be multiplied to get a perfect cube is. $\qquad$
a) 2
b) 3
c) 5
d) 7
5. By what number should 135 be divided to get a perfect cube is. $\qquad$
a) 7
b) 3
c) 5
d) 11
6. If a coin is tossed the total number of possible outcomes is $\qquad$
a) 3
b) 4
c) 2
d) 17 .
7. A man walks 20 km in 5 hrs . How much time it will take for him to walk 32 kms is
a) 3 hrs .
b) 4 hrs .
c) 6 hrs .
d) 8 hrs .
8. If $X \& Y$ are inversly proportional then which of the following is correct is $\qquad$
a) $X+Y=$ Constant
b) $\mathrm{X}-\mathrm{Y}=$ Constant
c) $X x Y=$ Constant
d) $X \div Y=$ Constant
9. Example of 3D Figure is $\qquad$
a) Cuboid
b) Rectangle
c) Square
d) Circle
10. The co-ordinate of a Point whose $X$ co-ordinate is 4 and $Y$ co-ordinate is 0 is $\qquad$
a) $(4,0)$
b) $(0,4)$
c) $(0,0)$
d) $(4,4)$
11. The factorisation of $49 x^{2}-36$ is $\qquad$
a) $(7 x+6)^{2}$
b) $(7 x-6)(7 x+6)$
c) $(7 x-6)^{2}$
d) $7 x^{2}+6^{2}$
12. The CSA of cuboid is $\qquad$
a) $2(\mathrm{bh}+\mathrm{hl})$
b) $(b h+h l)$
c) Ibh
d) $61^{2}$
13. 1 Liter is equal to $\qquad$ $\mathrm{cm}^{3}$
a) 1000
b) 100
c) 10
d) 1
$14.72 \%$ of 25 is $\qquad$
a) 16
b) 18
c) 12
d) 14
14. The percentage of $3: 4$ is $\qquad$
a) $40 \%$
b) $50 \%$
c) $65 \%$
d) $75 \%$
15. On which operation the set of integer in closed is. $\qquad$
a),,$+- x$
b),,$+- \div$
c) $+, x, \div$
d) $-, x, \div$
$17.3 x \times 5 y$ is equal to $\qquad$
a) $3 x y$
b) $15 x y$
c) $5 x y$
d) $x y$
16. The LCM of $7 \& 3$ is
a) 21
b) 7
c) 10
d) 3
17. The cuboid has $\qquad$ number of faces.
a) 12
b) 8
c) 4
d) 6
18. The common factor of $2 y \& 22 x y$ is
a) $2 y$
b) $2 x$
c) 2
d) $2 x y$

## II Solve the following :

21. Find the Cube root of 729 by Factorisation Method

> 22. Simplify i) $\left(7^{3}\right)^{8}$ or

Evaluate $\left(5^{-1} \times 2^{-1}\right) \times 6^{-1}$
23. Factorise $x^{2}+x y+8 x+8 y$
or
Factorise $63^{2}-112 b^{2}$
24. Match the following

## Shapes

Rectangle

## Area

$\frac{1}{2} \times b \times h$
Square $\quad b x h$
Triangle $\quad \mathrm{Ixb}$
Parallelogram
25. A car takes 2 hours to reach a destination by travelling at the speed of $60 \mathrm{~km} / \mathrm{hr}$. How long will it take when the car travels at the speed of $80 \mathrm{~km} / \mathrm{hr}$ ?
or
A machine in a soft drink factory fills 840 bottles in six hours. How many bottles will in fill in five hours?

## III. Solve the following question

 $3 \times 2=06$26. A VCR and TV were bought for ${ }^{`} 8,000$ each. The shopkeeper made a loss of $4 \%$ on the VCR and a profit of $8 \%$ on the TV. Find the gain or loss percent on the whole transaction.
27. Find the area of a rhombus whose side is 5 cm and whose altitude is 4.8 cm . If one of its diagonals is 8 cm long, find the length of the other diagonal.

## Or

The area of trapezium is $34 \mathrm{~cm}^{2}$ and the length of one of the parallel sides is 10 cm and its height is 4 cm . Find the length of the other parallel side.

## IV .Solve the following question

$1 \times 4=04$
28. Draw the graph for the following tables of values, with suitable scales on the axes . Interest of deposits for a year.

| Deposit (in Rs) | 1000 | 2000 | 3000 | 4000 |
| :--- | :---: | :---: | :---: | :---: |
| Simple Interest (in Rs) | 80 | 160 | 240 | 320 |

i) Does the graph pass through the origin?
ii) Use the graph to find the interest on 2500 for a year.

