## GRADE:8- ANNUAL EXAMINATION202021

## SUBJECT: MATHEMATICS

Blocks 23, 24, 25, 26

## 1. Choose the correct answer.

(a) If each side of a cube is doubled,
(i) the surface area of the new cube will be:
a) two times the original surface area
b) half the original surface area.
c) four times the original surface area.
d) eight times the original surface area.
(ii) the volume of the new cube will be:
a)two times the original volume.
b) half of the original volume.
c)four times the original volume.
d)eight times the original volume.
(b) If the height of a cylinder is doubled, the volume of the new cylinder will:
a) be halved.
b) be twice the original volume.
c) be four times the original volume.
d)remain unchanged.
(c) If the radius of a cylinder is halved and its height is doubled, the volume of the new cylinder will:
a) be half of the original volume.
c) two times the original volume.
b) be four times the original volume.
d) remain unchanged.

## 2)Multiple choice Questions

1. The area of parallelogram is $60 \mathrm{~cm}^{2}$ and one of its altitude is 5 cm . The length of Its corresponding side is:
(a). 12 cm
(b). 6 cm
(c). 4 cm
(d). 2 cm
2. The volume of a cube is 643 . Its surface area is:
(a). $16 \mathrm{~cm}^{2}$
(b). $64 \mathrm{~cm}^{2}$
(c). $96 \mathrm{~cm}^{2}$

(d). $128 \mathrm{~cm}^{2}$
3. The lateral surface area of cuboid is
a) $2 h(l+b)$
b) $2(l b+b h+h l)$
c) $2(l+b)$
d) $2 h(h+b)$
4. Volume of a cube whose edge $3 x$ is
a) $24 x^{3}$
b) $9 x^{3}$
c) $27 x^{3}$
d) $6 x^{3}$
5. The Value of $\left(2^{3}\right)^{-2}$ is
a) $2^{6}$
b) $2^{-6}$
c) $3^{-4}$
d) $3^{4}$
6. Write the numbers in their standard form.
(a) The population of China is 1404 million.
(b) A company makes a profit of 3.2 crore rupees.
(c) The diameter of the sun is 864938 million km .
(d) The average thickness of a strand of hair is 0.00033 ft .
(e) The mass of one bacteria is 0.000000000625 g .
4) Find the surface area of:
(a) a cube of side length 3 cm .
(b) a cuboid of dimensions $4 \mathrm{~cm} \times 5 \mathrm{~cm} \times 6 \mathrm{~cm}$.
5) A rectangular sheet of dimensions $55 \mathrm{~cm} \times 11 \mathrm{~cm}$ is rolled along its breadth without any overlap to make a cylinder. Find the volume of the cylinder formed.(use $\pi=\frac{22}{7}$ )
6) A car's tyre makes 1000 rotations to cover 1.256 km . Find the diameter of the tyre. ( $\pi=3.14$ )
7) Find the circumference of a circle whose area is $1256 \mathrm{~cm} 2 .(\pi=3.14)$
8) DL and BM are the heights on sides AB and DC in Parallelogram ABCD respectively. If the area of Parallelogram $A B C D$ is $1470 \mathrm{~cm} 2, A B=35 \mathrm{~cm}$, find the length of BM and DL .
9) The diagonals of a Rhombus are 19.4 cm and 14.7 cm . Find the area.
10) Find the area of a quadrilateral is 24 cm and the altitudes drawn on it from the opposite
vertices are 11 cm and 21 cm .
11) Find the area of a rhombus whose diagonals are of lengths 8 cm and 6 cm .
12)Simplify $\left[\left(-\frac{2}{3}\right)^{-2}\right]^{3} \times\left(\frac{1}{3}\right)^{-4} \times \frac{1}{6}$
12) Find the area of the polygon ABCDE

13) The dimensions of a room are $15 \mathrm{~m} \times 10 \mathrm{~m} \times 5 \mathrm{~m}$. Find the total cost of white washing all four walls and the ceiling of the room. The cost of white washing per square meter is Rs 125 .
14) Find the volume of the figure.

15) Find the volume of the given cylinder.

