ARITHMETIC

Mensuration Worksheet

For students preparing for MAH-B.BCA/BBA/BMS/BBM CET 2024 for admission to BCA, BBA, BMS, BBM

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1. Find the height of a cuboid whose volume is 275 cm3 and base area is 25 cm2.
   A. 15cm
   B. 18cm
   C. 25cm
   D. 11cm

2. What is the volume of sphere whose radius is 14 cm?
   A. 22158.33
   B. 11699.67
   C. 11250.33
   D. 11498.66

3. A rectangular plot of grass is 50m long and 40m broad. From the center of each side a path of 3m wide goes across the center of the opposite side. Find the area of path?
   A. 270
   B. 280
   C. 251
   D. 261

4. If the perimeter of square, circle, rectangle, are equal. Then whose area is largest?
   A. Circle
   B. Square
   C. Rectangle
   D. All are equal

5. The ratio between volumes of a hemisphere and a cone is 1:1. If the cone's height is equal to its diameter, then find the ratio of diameter of hemisphere and cone?
   A. 2:1
   B. 1:1
   C. 3:2
   D. 2:3

6. A solid toy is in the form of a hemisphere surmounted by a right circular cone. Height of the cone is 2cm and the diameter of the base is 4cm. If a right circular cylinder circumscribe the solid, find how much more space will it cover?
   A. 4π cm3
   B. 2π cm3
   C. 16π cm3
   D. 8π cm3

7. A right circular cone is exactly fitted inside a cube in such a way that the edges of the base of the cone are touching the edges of one of the faces of the cube and the vertex is on the opposite face of the cube. If the volume of cube is 2744 cubic cm, what is the approximate volume of the cone?
   A. 715
   B. 719
   C. 729
   D. 725

8. Total surface area of cylinder is 704 cm2 and ratio of height and base radius of cylinder is 3:4 Then what will be the volume of that cylinder?
   A. $384\pi\ cm^3$
   B. $243\pi\ cm^3$
   C. $518\pi\ cm^3$
   D. $423\pi\ cm^3$

9. A cubical block of 8m x 12m x16m is cut into exact number of equal cubes. The least possible number of cubes will be?

A. 9
B. 24
C. 18
D. 30

10. If radius of cone decrease by 50% and height increase by 20%. Then find the percentage change in the volume.

A. 70% decrease
B. 70% increase
C. 40% decrease
D. 40% increase

11. A sphere of 5 cm radius is melted and small sphere of radius 1 cm is made from it. Find the number of sphere that can be made from it.

A. 25
B. 125
C. 50
D. 100

12. If the base of a pyramid is square and its side is $4\sqrt{2}$ cm and slant height of pyramid is 5 cm, find the volume of pyramid.

A. 48 cm3
B. 16 cm3
C. 24 cm3
D. 32 cm3

13. The diagram shows a section of a rocket firework. If this section can be completely filled with gunpowder what is the volume of gunpowder required?

A. 1882 cm3
B. 1782 cm3
C. 1982 cm3
D. 1682 cm3

14. The radii of two cylinders are in the ratio 3 : 2 and their curved surface areas are in the ratio 3: 5. What is the ratio of their volumes?

A. 8:11
B. 5:9
C. 7:4
D. 9: 10

15. A container is formed by surmounting a hemisphere on a right circular cylinder of same radius as that of hemisphere. If the volume of the container is 576 m3 and radius of cylinder is 6 m, then find the height of the container.

A. 14 m
B. 12 m
C. 20 m
D. 18 m

16. What is the volume of a cylinder whose curved surface area is 1408 cm2 and height is 16 cm?

A. 7715 cm3
B. 9340 cm3
C. 8722 cm3
D. 9856 cm3

17. A 7 m wide path is to be made around a circular garden having a diameter of 7 m. What will be the area of the path in square metre?

A. 298
B. 256
C. 308
D. 365

18. The area of a rectangle 144m long is the same as that of a square having a side 84m long. The width of the rectangle is

A. 7 m
B. 14 m
C. 49 m
D. cannot be determined

Answer Key

1. D	2. D	3. D	4. A	5. B	6. D	7. B	8. A	9. B	10. A
11. B	12. D	13. B	14. D	15. D	16. D	17. C	18. C		