DEPARTMENT OF PUBLIC INSTRUCTION - CHIKKAMAGALURU

MULTIPLE CHOICE QUESTIONS FOR PRACTICE

SUBJECT: MATHEMATICS UNIT: SURFACE AREA AND VOLUME CLASS:10

STUDENT NAME:

SCHOOL NAME:

Four alternative /choices are given for each incomplete statement or a question. Click the correct answer.

1. The curved surface area of a solid cylinder of radius 'r' cm and height 'h' cm is

A) $2\pi r$ (r+h) sq cm B) $2\pi rh$ sq cm C) πrl sq cm D) πr^2 sq cm

2 . The formula to find total surface area of a cylinder having height "h" and radius " r" is

A. $2\pi r$ (r+h) B. $2\pi rh$ C. πrl D. πr^2

3. The formula to find volume of cylinder having height "h" and radius " r"

A) $2\pi r$ (r+h) B) $2\pi rh$ C)) 1/3 πr^2h D) πr^2h

4) The formula to find curved surface area of cone having slant height "l" and radius " r" is

A) πr (r+h) B) $2\pi rh$ C) πrl D) πr (r+l)

5) The formula to find total surface area of cone having slant height "l" and radius " r" is

A) πr (r+h) B) $2\pi rh$ C) πrl D) πr (r+l)

6) The formula to find volume of cone having height "h" and radius " r" is

A) $4\pi r^2$ B) $2\pi rh$ C)) 1/3 πr^2h D) πr^2h

7) The formula to find curved surface area of hemisphere having radius " r" is

A) πr^2 B) $2\pi r^2$ C)) 3 πr^2 D) $4\pi r^2$

8) The formula to find total surface area of hemisphere having radius " r" is

A) πr^2 B) $2\pi r^2$ C)) 3 πr^2 D) $4\pi r^2$

9) The formula to find volume of hemisphere having radius " r" is

A) $3\pi r^2$ B) 4/3 πr^3 C) 2/3 πr^3 D) πr^2h

10) The formula to find curved surface area of sphere having radius " r" is

A) πr^2 B) $2\pi r^2$ C)) 3 πr^2 D) $4\pi r^2$

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11) The formula to find total surface area of a sphere having radius " r" is

A) πr^2 B) $2\pi r^2$ C)) $3\pi r^2$ D) $4\pi r^2$

12) The formula to find volume of sphere having radius " r" is

A) $4\pi r^2$ B) $4/3\ \pi r^3$ C) $2/3\ \pi r^3$ D) $\pi r^2 h$

13) The formula to find curved surface area of frustum of a cone having slant height "l" and radius " r" is

A) $\pi(r_1+r_2)\,l$ B) $\pi(r_1+r_2)\,l + \pi r_1^2 + \pi r_2^2$ C) $\pi r l$ D) $\pi r\,(r+l)$

14) The formula to find total surface area of frustum of a cone having slant height "l" and radius " r" is

A) $\pi(r_1+r_2)\,l$ B) $\pi(r_1+r_2)\,l + \pi r_1^2 + \pi r_2^2$ C) $\pi r l$ D) $\pi r\,(r+l)$

15) The formula to find volume of frustum of a cone having height "h" and radius " r" is

A) $\pi(r_1+r_2)\,l$ B) $\pi(r_1+r_2)\,l + \pi r_1^2 + \pi r_2^2$ C) $\pi r^2 h$ D) $1/3\pi\, h(\, r_1^2 + r_2^2 + r_1 r_2)$

16) The relationship between radius "r" and height "h" and slant height "l" of a cone is

A) $l^2 = r^2 + h^2$ B) $r^2 = l^2 + h^2$ C) $l^2 = r^2 - h^2$ D) $h = r^2 + l^2$

17) The surface area of a sphere is 616 sq.m. The surface area of its hemisphere is

A) 205.6 cm^2 B) 308 cm^2 C) 1232 cm^2 D) 38 cm^2

18) The surface area of a sphere is 2464 sq.m. The surface area of its hemisphere is

A) 205.6 cm^2 B) 308 cm^2 C) 1232 cm^2 D) 38 cm^2

19) The perimeter of the base of a right circular cylinder is 44 cm and its height is 10 cm. Then its volume is

A) $490\pi\ cm^3$ B) $440\pi\ cm^3$ C) $374\ \pi\ cm^3$ D) $980\pi\ cm^3$

20) Prepare a cone from " model clay". When wet, cut it with a knife parallel to its base, remove the smaller cone obtained. The solid left is a

A) Cylinder B) Cone C) Sphere D) Frustum of a cone

21) The perimeter of the base of a right circular cylinder is 44 cm and its height is 10 cm. Then its lateral surface area is

A) 490 cm^2 B) 440 cm^2 C) 374 cm^2 D) 220 cm^2

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22) The volume of a cylinder is $300m^3$. Then the volume of a cone having the same radius and height has that of the cylinder is

A) $900\ m^3$ B) $600\ m^3$ C) $150\ m^3$ D) $100\ m^3$

23) The surface area of a sphere of radius 7 cm is

A) $154\ cm^2$ B) $308\ cm^2$ C) $616\ cm^2$ D) $770\ cm^2$

24) The curved surface area of a hemisphere of radius 14 cm

A) $1232\ cm^2$ B) $308\ cm^2$ C) $616\ cm^2$ D) $2464\ cm^2$

25) If the volume of a cone is $300\ m^3$ then the volume of a cylinder having same radius and same height as that of cylinder is

A) $900\ m^3$ B) $600\ m^3$ C) $150\ m^3$ D) $100\ m^3$

26) A funnel is combination of frustum of cone and

A) Hemisphere B) Cylinder C) Sphere D) Cone

27) The surface area of a sphere is $616\ cm^2$.Its radius is

A) 7 cm B) 14 cm C) 21 cm D) 28 cm

28) If two solid hemispheres of same radius are joined together along their bases. The surface area of this new solid is

A) $3\pi r^2$ B) $4\pi r^2$ C)) $5\pi r^2$ D) $6\pi r^2$

29) A cylinder and cone are of same base,radius and height. Then the ratio of their volume is

A) 2:1 B) 3:1 C)) 2:3 D) 3:2

30) A solid has been melted and recast into a wire. Which of the following remains same.

A) Lenght B) Volume C)) Radius D) Height

31) The curved surface area of a frustum of a cone having slant height 4 cm and radii of its circular bases $9/\pi$ cm and $3/\pi$ cm is

A) $200\pi\ cm^2$ B) $192\ cm^2$ C) $96\ cm^2$ D) $48\ cm^2$

32) The slant height of a cone having radius 5cm and height 12 cm is

A) 6 cm B) 9 cm C) 11 cm D) 13 cm

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