



# ST. LAWRENCE HIGH SCHOOL



## A Jesuit Christian minority Institution

Subject: Mathematics

Class- X

Date: 13/02/2021

Topic: Right circular cylinder

Worksheet-8

Full marks -15

1. Choose the correct alternative. 1x15=15
- a) The base area of a closed cylindrical water tank is 616 sq m and height is 21 m. Write total surface area i) 3081 sq m ii) 3080 sq m iii) 3050 sq m iv) none of these
- b) If the perimeter of base of any closed cylindrical pot is 22 dm and height is 5 dm. Calculate the area that will be colored outside the pot? a) 187 sq dm ii) 110 sq dm iii) 110 sq m iv) 187 sq m
- c) The total surface area of a right circular cylinder with one end open is 1474 sq cm. If the length of diameter of the base is 14 cm. Calculate its height. i) 35 cm ii) 40 cm iii) 30 cm iv) none of these
- d) If the above mentioned pot is closed at 2 ends then write total surface area i) 1628 sq cm ii) 1600 sq cm iii) 1682 sq cm iv) none of these
- e) The length of the diameter of the base of a drum with lid made of steel sheet is 4.2 dcm. If 112.20 sq dcm of steel sheet is required to make the drum. Calculate the height of the drum.  
i) 6 dcm ii) 6.5 dcm iii) 6.4 dcm iv) none of these
- f) If the length of diameter of base of glass is 11.2 cm and height is 15 cm. Calculate the volume.  
i) 1478.4 cu cm ii) 1475.4 cu cm iii) 1400 cu cm iv) none of these
- g) Height of a right circular cylinder made of iron open at 2 ends is 42 cm. If the thickness of the cylinder is 1 cm and length of its external diameter is 10 cm. Calculate the volume of iron

- i) 1182 cu cm ii) 1180 cu cm iii) 1188 cu cm iv) none of these
- h) The length of diameter of a drum made of steel covered with lid is 28 cm. If 2816 sq cm steel sheet is required to make the drum. Write the height of the drum?
- i) 18 cm ii) 16 cm iii) 20 cm iv) none of these
- i) If a gas cylinder for fuel purpose having the length of 7.5 dcm and the length of the inner diameter of 2.8 dcm carries 15.015 kg of gas. Calculate weight of the gas per cubic dcm?
- i) 3.25 gm ii) 3250 gm iii) 325 gm iv) none of these
- j) out of 3 jars of equal diameters and height,  $\frac{2}{3}$  part of the first,  $\frac{5}{6}$  part of the second,  $\frac{7}{9}$  part of the third were filled with dilute sulphuric acid. Whole of acid in the 3 jars were poured into a jar with diameter 2.1 dc m and height of acid in the jar became 4.1 dcm. If the length of diameter of each of the 3 equal jars is 1.4 dc m. Calculate the height of the 3 jars.
- i) 4.5 dc m ii) 4.05 dc m iii) 4 dc m iv) 3.05 dc m
- k) In a cylinder, if radius is doubled and height is halved, curved surface area will be
- i) halved ii) doubled iii) same iv) 4 times
- l) 2 cylindrical jars have their diameters in the ratio 3:1 but height 1:3 then ratio of their volume is
- i) 1:4 ii) 3:1 iii) 1:3 iv) 2:5
- m) vertical cross section of a right circular cylinder is always a
- i) rectangle ii) square iii) rhombus iv) trapezium
- n) If the radius of the cylinder is doubled and the height remains same, the volume will be i) 4 times ii) doubled iii) halved iv) none of these
- o) 4 times ii) doubled iii) halved iv) 3 times
- o) If the height of a cylinder is doubled and radius remains the same, then volume will be i) doubled ii) halved iii) same iv) 4 times

Aparajita Mondal