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# ST. LAWRENCE HIGH SCHOOL



## A Jesuit Christian minority Institution

Subject: Mathematics

Class: X

Date: 27.04.2020

Answer key of Worksheet-18

Chapter- Right circular cone

Topic- Curved and whole surface area

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1. Choose the correct alternative. 1x15=15

a) Radius of the base of a right circular cone is 20 cm and slant height is 25 cm .  
What is the height of the cone?

Ans ii) 15 cm

b) Radius of the base of a right circular cone is 21 cm and slant height is 25 cm .  
What is the curved surface area?

Ans i) 1650sq cm

c) What is the whole surface area of a right circular cone with 1.4 cm radius and 2.5 cm slant height? Ans ii) 17.16 sq cm

d) Find the height of a right circular cone with 10 cm slant height and 12 cm diameter of its base.

Ans i) 8cm

e) Find whole surface area of a right circular cone with radius  $r/2$  cm and slant height 2l cm.

Ans ii)  $\pi r(1 + r/4)$  sq cm

f) Find curved surface of a right circular cone with slant height 15 cm and base diameter 16 cm.

Ans iii)  $120\pi$  sq cm

g) Curved surface area of a right circular cone is  $\sqrt{5}$  times of the base area. find ratio of the height and radius.

Ans ii) 2:1

**h) Find curved surface area of a right circular cone with base diameter 21 m and height 14 m.**

**Ans) 577.5 sq m**

**i) To colour the curved surface of the right circular cone mentioned in question no. (h) at Rs 1.50/ sq m we need      Ans ii) Rs 866.25**

**j) Whole surface area of a right circular cone with base diameter 24 cm and slant height 21 cm is**

**Ans) 1244.57 sq cm**

**k) Find slant height of a right circular cone with base diameter 48 cm and height 10 cm .**

**Ans iii) 26 cm**

**l) Find area of curved surface of a right circular cone with diameter 10.5 cm and slant height 10 cm .**

**Ans i) 165 sq cm**

**m) Radius and slant height of a right circular cone are 35 cm and 37 cm respectively. Find whole surface area.**

**Ans ii) 7920 sq cm**

**n) Ratio of radius and slant height of a right circular cone is 7 :13. Curved surface area is 286sq cm. Then Radius is      Ans iii) 7 cm**

**o) Slant height and height of a right circular cone are 10 m and 8 m respectively. Then curved surface area is      Ans)  $60\pi$  sq m**

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