Class IX Mathematics CPS

Surface Areas

1) If each side of a cube is increased by 50%, then the surface area of the cube increases by
   a) 50% b) 100% c) 125% d) 150%
2) Find the radius of the base of a right circular cylinder whose curved surface area is 2/3 of the sum of the surface areas of two circular faces. The height of the cylinder is given to be 15 cm.
   a) 22 cm b) 22.5 cm c) 20 cm d) 20.5 cm
3) The diameters of wo cones are equal. If their slant heights are in the ratio 5 : 4, then the ratio of their curved surface areas is
   a) 4 : 5 b) 25 : 16 c) 16 : 25 d) 5 : 4
4) If 6 cubes of side 2 cm are joined, then find the total surface area (in cm^2) of resulting cuboid.
5) The slant height of a cone is 25 cm and the vertical height is 24 cm. Find the total surface area of the cone.
6) The altitude of a circular cylinder is increased by six times and the base area is decreased by one-ninth of its value. Find the ratio of the lateral surface area of the new cylinder to the original surface area
7) The length of a cold storage is three times its breadth. Its height is 5 m. The area of its four walls (including doors) is 256 m^2. Find its total surface area.
8) The curved surface area of a cone is 154 cm^2. If its radius is x cm and slant height is 7 cm. Find the value of $20x$
9) The curved surface area of a cone is 12320 sq. cm , if the radius of its base is 56 cm , find :
   a) Its height
   b) Total surface area of a cone
10) On a construction site, a deep pit is barricaded from the remaining portion by using 100 hollow cones. Each one has a base diameter 20 cm and height half a meter. What is the cost of painting the outer surface of all the cones, if cost of painting is ₹ 30 per m^2? [Use, $\pi = 3.14$, $\sqrt{26} = 5.1$]