INDIAN SCHOOL AL WADI AL KABIR

Department: Mathematics

Class IX Worksheet –SURFACE AREA AND VOLUME (MCQ)

Questions of 1 Mark each.

1.	A cone is 8.4 cm high and the radius of its base is 2.1 cm. It is melted and recast into a sphere. Then, the radius of the sphere is							
	A	4.2 cm	**B**	2.1 cm	**C**	2.4 cm	**D**	1.6 cm
2.	The radius of a hemispherical balloon increases from 6 cm to 12 cm as is being pumped into it. The ratios of the surface areas of the balloon in the two cases is							
	A	1:4	**B**	1:3	**C**	2:3	**D**	2:1
3.	Curved surface area of a solid cone is 308 cm^2 and its slant height is 14cm. The radius of base and total surface area of the cone is							
	A	14 cm, 264cm^2	**B**	7 cm, 426cm^2	**C**	14 cm, 462cm^2	**D**	7 cm, 462cm^2
4.	Volume of a hemisphere is 19404 cubic cm. The total surface area is							
	A	4272 cm^2	**B**	4158 cm^2	**C**	5544 cm^2	**D**	1386 cm^2
5.	The hollow sphere, in which the circus motorcyclist performs his stunts has a diameter of 7m. The area available to the motorcyclist for riding is:							
	A	200 m^2	**B**	74 m^2	**C**	154 m^2	**D**	324 m^2
6.	A hostel provides milk to the students daily in a hemispherical bowl of diameter 7 cm. Find how many litres of milk is needed to serve 1600 students.							
	A	108.977 litres	**B**	178.566 litres	**C**	143.733 litres	**D**	213.222 litres
7.	A conical pandal 240 m in radius and 100 m high is made of cloth which is 100π m wide. Then, the length of cloth used to make the pandal is							
	A	625 m	**B**	600m	**C**	676 m	**D**	624 m
8.	If the circumference of the base of a 24 m high solid wooden cone is 44 m, then its curved surface area is							
	A	551 m^2	**B**	220 m^2	**C**	550 m^2	**D**	1232 m^2

ASSERTION AND REASONING

DIRECTION: In the question number 9 and 10, a statement of assertion (A) is followed by statement of Reason (R). Choose the correct option:

(a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A). (b) Both assertion (A) and reason (R) are true and reason (R) is not the correct explanation of assertion (A). (c) Assertion (A) is true but reason (R) is false. (d) Assertion (A) is false but reason (R) is true.	
9.	**Assertion:** The outer surface of hemisphere of radius 7 cm is to be painted. The total cost at the rate of ₹5 percm^2 is ₹2300. **Reason:** The total surface area of a hemisphere is $3\pi r^2$.
10.	**Assertion:** The radii of two cones are in the ratio 2:3 and their volumes in the ratio 1:3. Then ratio of their heights is 3:2. **Reason:** Volume of a cone is $\frac{1}{3}\pi r^2 h$

Answers

1	B	2	A	3	D	4	B	5	C
6	C	7	D	8	C	9	D	10	D