Questions of 1 Mark each.

1.	The ratio of radius and slant height of a cone is 4:7. If the curved surface area of cone is 792 cm³ then find its radius (use $\pi = 22/7$)						
	A	21 cm	**B**	14 cm	**C**	12cm	**D**	16 cm

2.	The lateral surface area of a cylinder is equal to the curved surface area of a cone. If the radius be the same, find the ratio of the height of the cylinder to the slant height of cone.						
	A	1:4	**B**	1:3	**C**	2:3	**D**	1:2

3.	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. The radius of the sphere is:						
	A	2.7 cm	**B**	2.1 cm	**C**	4.2 cm	**D**	6.3 cm

4.	The radius of a hemispherical balloon increases from 5 cm to 10 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

5.	A hostel provides milk to the students daily in a hemispherical bowl of radius 9 cm. Find how many litres of milk is needed to serve 1400 students.						
	A	2138.4litrs	**B**	2136.4litrs	**C**	2316.4litrs	**D**	3316.4 litrs

6.	A circus motorcyclist performs stunts inside a hollow spherical structure of diameter 14 m. The area available to him for riding is:						
	A	200 m^2	**B**	616 m^2	**C**	154 m^2	**D**	324 m^2

7.	How much cloth material will be required to cover 4 small domes each of radius 2m?						
	A	103.57 m²	**B**	105.57 m²	**C**	100.5 m^2	**D**	105.77 m²

8.	If the circumference of the base of a 70 m high solid wooden cone is 616 m, then its radius is:						
	A	100m	**B**	98m	**C**	89m	**D**	49m

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: A right circular cylinder just enclosing a sphere of radius r has curved surface area $4\pi r^2$. Reason: Height of the cylinder is equal to the diameter of the sphere.
10.	Assertion: If the height of cone is 24 cm and diameter of base is 14cm, then the slant height of the cone is 25cm. Reason: If r be radius and h be the height, then the slant height $=\sqrt{h^2 + r^2}$

Answers

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