BCM SCHOOL, BASANT AVENUE, DUGRI, LUDHIANA.
NOVEMBER ASSIGNEMENT(2024-25)
CLASS- IX (MATHEMATICS)
TOPIC- SURFACE AREA AND VOLUME & STATISTICS

SECTION –A (MULTIPLE CHOICE QUESTIONS)

1.	For drawing a frequency polygon of a continuous frequency distribution , we plot the points whose ordinates are the frequencies of the respective classes and abscissae are (a) upper limits of the classes (b) lower limits of the classes (c) class marks of the classes (d) upper limits of preceding classes
2.	Class mark of a particular class is 6.5 and class size is 3, then class interval is (a) 5-8 (b) 6.5-9.5 (c) 3.5-6.5 (d) 4.25-7.25
3.	The volume of two spheres are in the ratio 27:8, The ratio of their curved surface is (a) 9:4 (b) 3:2 (c) 4:9 (d) 2:3
4	Assertion (A) : The height of the cone is 15 cm. If the volume is 500π cm^3 , then the radius of its base is 10 cm. Reason (R) : Volume of cone is $4/3\ \pi r^3$. (a) Both Assertion (A) and Reason (R) are the true and Reason (R) is a correct explanation of Assertion (A). (b) Both Assertion (A) and Reason (R) are the true but 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 and Reason (R) is true.

SECTION – B(2 MARKS QUESTIONS)

5.	The curved surface area of a conical vessel is 10 times it's slant height. Find the diameter of the vessel.
6.	The class marks of a distribution are 37, 42, 47,52,57. Determine the class size and the class limits of one last class mark.
7.	The height of a cone is 16 cm and it's base radius is 12 cm . Find total surface area of the cone.

SECTION – C (3 MARKS QUESTIONS)

8.	Metallic spheres of radii 6 m , 8 m and 10 m , respectively are melted to form a single solid sphere. Find the radius of the resulting sphere.
9.	The radius and height of a right circular cone are in the ratio 4 : 3 and it's volume is 2156 cm^3. Find the curved surface area of cone.

SECTION – D (5 MARKS QUESTIONS)

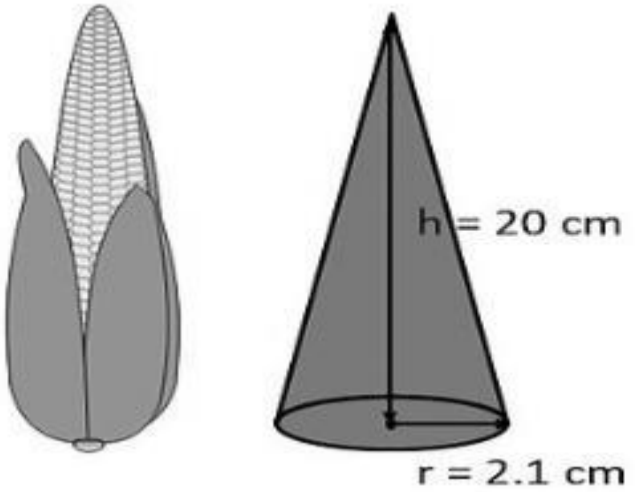
10. The internal and external diameters of a hollow hemispherical vessel are 24 cm and 25 cm respectively. If the cost of painting 1 cm^2 of the surface area is ₹ 0.05 , find the total cost of painting the vessel all over.

11. Draw a histogram to represent the following distribution.

Marks	Number of students
0-20	7
20-30	10
30-40	10
40-50	20
50-60	20
60-70	15
70-100	8

SECTION – E (CASE STUDY)

12 A farmer Rajesh grows a corn cob in his farm. It contains valuable Vitamin B, Antioxidants, carotenoids, lutein and Zeaxanthin which is useful for body growth.



A corn cob (above figure) shaped some what like a cone, has the radius of its broadest end as 2.1 cm and length as 20 cm.

Then, answer the following questions:

a) Write the formula to find the curved surface area of cone.

b) Find slant height of the corn cob.

OR

What will be the curved surface area of corncob in cm^2?

c) Find volume of the corn cob.