



Dr BR Ambedkar Gurukulam Kopperla

STD 9 Maths		FA4 Practice Work Sheet				Roll No. :	
Student Name :						Class :	
Question	1	2	3	4	Marks Obtained	Total Marks	Signature of Examiner :
Marks Obtained						35	Date : 17-02-2025

section A () Choose the right answer from the given options. [1 Marks Each] [4]

1. Area of an isosceles triangle ABC with AB = a = AC and BC = b is:
 (A) $\frac{1}{2}b\sqrt{a^2 - b^2}$ (B) $\frac{1}{4}b\sqrt{a^2 - b^2}$ (C) $\frac{1}{2}b\sqrt{4a^2 - b^2}$ (D) $\frac{1}{4}b\sqrt{4a^2 - b^2}$
2. A cuboid is 12cm long, 9cm broad and 8cm high. Its total surface area is:
 (A) 864cm² (B) 552cm² (C) 432cm² (D) 276cm²
3. Mode is:
 (A) Middle most value. (B) Most frequent value. (C) Least frequent value. (D) None of these.
4. The median of the data 78, 56, 22, 34, 45, 54, 39, 68, 54, 84 is:
 (A) 54 (B) 56 (C) 45 (D) 49.5

section A () A statement of Assertion (A) is followed by a statement of Reason (R). [1] Choose the correct option.

5. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following:

Assertion: The sides of a triangle are 3cm, 4cm and 5cm. Its area is 6cm².

Reason: If $2s = (a + b + c)$, where a, b, c are the sides of a triangle, then area
 $= \sqrt{(s-a)(s-b)(s-c)}$.

- a. Both assertion and reason are true and reason is the correct explanation of assertion.
- b. Both assertion and reason are true but reason is not the correct explanation of assertion.
- c. Assertion is true but reason is false.
- d. Assertion is false but reason is true.

section A () Answer the following questions in one sentence. [1 Marks Each]

[2]

6. Find the surface area of a sphere of radius 5.6 cm.
7. Find the surface area and total surface area of a hemisphere of radius 21 cm.

section B () Answer the following short questions. [2 Marks Each]

[12]

8. Find the radius of sphere whose surface area is 154 cm^2 .
9. Find the capacity in litres of a conical vessel with radius 7 cm, slant height 25 cm.
10. If the volume of a right circular cone of height 9 cm is $48\pi \text{ cm}^3$, find the diameter of its base.
11. A right triangle ABC with sides 5 cm, 12 cm and 13 cm is revolved about the side 12 cm. Find the volume of the solid so obtained.
12. A hemispherical tank is made up of an iron sheet 1 cm thick. If the inner radius is 1 m, then find the volume of the iron used to make the tank.
13. 100 plants each were planted in 100 schools during Van Mahotsava. After one month, the number of plants that survived were recorded as : 95, 67, 28, 32, 65, 65, 69, 33, 98, 96, 76, 42, 32, 38, 42, 40, 40, 69, 95, 92, 75, 83, 76, 83, 85, 62, 37, 65, 63, 42, 89, 65, 73, 81, 49, 52, 64, 76, 83, 92, 93, 68, 52, 79, 81, 83, 59, 82, 75, 82, 86, 90, 44, 62, 31, 36, 38, 42, 39, 83, 87, 56, 58, 23, 35, 76, 83, 85, 30, 68, 69, 83, 86, 43, 45, 39, 83, 75, 66, 83, 92, 75, 89, 66, 91, 27, 88, 89, 93, 42, 53, 69, 90, 55, 66, 49, 52, 83, 34, 36
Create a frequency distribution table with tally number.

section C () Answer the following questions. [3 Marks Each]

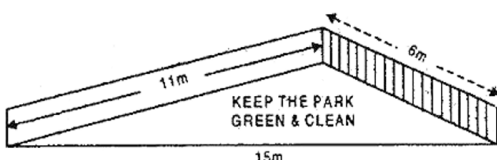
[6]

14. A heap of wheat is in the form of a cone whose diameter is 10.5 m and height is 3 m. Find its volume. The heap is to be covered by canvas to protect it from rain. Find the area of the canvas required.
15. A dome of a building is in the form of a hemisphere. From inside, it was white-washed at the cost of Rs. 4989.60. If the cost of white-washing is Rs. 20 per square metre. Find the
 - i. inside surface area of the dome.
 - ii. Volume of the air inside the dome.

section D () Answer the following questions. [5 Marks Each]

[10]

16. There is slide in a park. One of its side walls has been painted in some colour with a message KEEP THE PARK GREEN AND CLEAN, (see figure). If the sides of the wall are 15 m, 11 m and 6 m, find the area painted in colour.



17. Consider the marks obtained by 10 students in a mathematics test as given below:

55, 36, 95, 73, 60, 42, 25, 78, 75, 62

Find the maximum, minimum scores and range.
