| ATOMIC ENERGY CENTRAL SCHOOL. |
| SUBJECT: MATHEMATICS |
| CLASS: X   CHAPTER: APPLICATIONTO TRIGONOMETRY   MAX. MARKS:15 |
| WORK SHEET |

CHOOSE THE CORRECT OPTION.

1Two poles are 25m and 15m high and the line joining their tops make an angle of 45° with the horizontal. The distance between these poles is

    a. 5 m   b. 8 m   c. 9 m   d.10m   (1 mark)

2.   A portion of 60m long tree is broken by tornado and the top struck to the ground making an angle of 30° with the ground level. The height of the point where the tree is broken is equal to

    a. 30m   b. 35m   c. 40 m   d. 20 m   (1 mark)

3.   If the elevation of the Sun is 30°, then the length of the shadow cast by a tower of 150 feet height is

 a. 150 ft   b. 50√3 ft   c. 150√3 ft   d.   200 ft   (1 mark)

4. Two boats approach a light house in mid sea from opposite directions.

The angle of elevations of the top from two boats are 30° and 45° respectively. If the distance between the two boats is 100 m, find the height of the light house.   (3 marks)

5 . An observer 1.5 m tall is 20.5 m away from a tower 22m high. Determine the angle of elevation of the top of the tower from the eye of the observer.

6. An aeroplane is observed at the same time by two anti-aircraft guns 6000m distant apart to be at elevations of 30° and 45° respectively. Find the height of the plane. (3 marks)

7. From the top of a tower   100 m high, the angle of depression of the top and bottom of a pole are observed to be 45° and 60°. Find the height of the pole.

(3 marks)

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