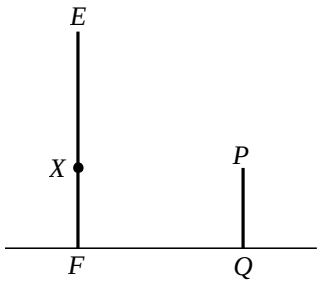
CHAPTER 10: ANGLES OF ELEVATION AND DEPRESSION

Cloned SPM Question (2006, Paper 1)

In the diagram, EF and PQ are two vertical poles on a horizontal plane. X is a point on EF such that $PQ = XF$.

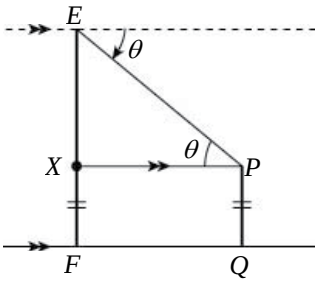


The angle of depression of P from E is

A $\angle EPX$ **C** $\angle PEX$

B $\angle EPF$ **D** $\angle QEF$

Solution



Angle of depression of P from E
$= \theta$
$= \angle$EPX

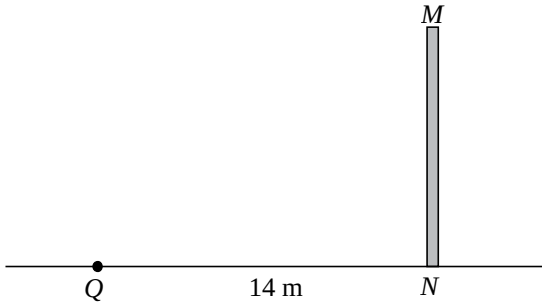
Answer: **A**

Pointers

- Draw a line parallel to FQ and join EP. Thus, the angle of depression of P from $E = \theta$
- Using alternate angles, $\theta = \angle EPX$

Cloned SPM Question (2006, Paper 1)

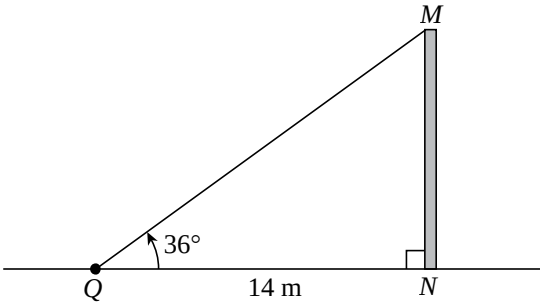
In the diagram, *MN* is a vertical lamp post on a horizontal ground. The angle of elevation of *M* from *Q* is 36°.



The height, in m, of the lamp post is

A 9.37
B 10.17
C 11.33
D 19.27

Solution



$$\frac{MN}{14} = \tan 36°$$
$$MN = 14 \tan 36°$$

Thus, height of the lamp post = 10.17 m

Answer: **B**

Pointers

- Identify the angle of elevation given, that is $\angle MQN = 36°$.
- Since ΔMQN is right-angled, and the sides involved are the opposite side *MN* and the adjacent side *QN*, use tangent to find *MN*, the height of the lamp post.