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General Questions

Practice Questions

Q1. For a beam with a moment of inertia I, what is the relationship between deflection and load?

A. Directly proportional
B. Inversely proportional
C. Independent
D. Quadratic

Solution: The deflection of a beam is inversely proportional to its moment of inertia (I); as I increases, deflection decreases.

Q2. What is the maximum deflection for a cantilever beam with a point load at the free end?

A. PL^3/3EI
B. PL^4/8EI
C. PL^3/48EI
D. PL^2/2EI

Solution: The maximum deflection (δ) for a cantilever beam with a point load (P) at the free end is given by δ = PL^3/3EI.

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