

Quizzes and short questions QUANTUM ELECTRONICS
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Module 4: Quizzes and short questions:

1. Q: Consider an optical fiber with $n_2 = 3.2 \times 10^{-20} \text{ m}^2/\text{W}$ and an effective mode area of $50 \mu\text{m}^2$. If we couple 100 mW into the fiber, obtain the change in the refractive index in the fiber due to nonlinearity.

Answers of module 4 Quizzes and short questions:

A1: A: $\Delta n = n_2 I = n_2 \frac{P}{A_{\text{eff}}} \approx 6 \times 10^{-11}$