

Previous Year JEE Questions

Q1: In an interference experiment the ratio of amplitudes of coherent waves is $(a_1/a_2) = (1/3)$. The ratio of maximum and minimum intensities of fringes will be

- (a) 4
- (b) 9
- (c) 2
- (d) 18

Solution

$$(I_{\max}/I_{\min}) = [(a_1 + a_2)^2/(a_1 - a_2)^2] = [(1 + 3)^2/(1 - 3)^2] = 16/4 = 4$$
