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Courses » Semiconductors Optoelectronics

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Unit 12 - Week 10

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Course outline

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Semiconductor Laser - III: Single Frequency Lasers

Vertical Cavity Surface

Assessment 10

The due date for submitting this assignment has passed.

As per our records you have not submitted this assignment.

Due on 2019-04-10, 23:59 IST.

Instructions:

- 1. Answer all questions; all questions carry equal mark.
- 2. All symbols have their usual meanings.
- 3. Only one of the options is correct
- 4. The 5th question is a "fill in the blank" type of question. You are supposed to enter a numerical answer to fill the blank as given in the question. Your answer must be correct upto two decimal places (unless it is an integer).
- 5. You can see the correct answers after the last date of submission.

Note:

Marks obtained in this quiz will be counted towards your final score. You can take the quiz and submit it any number of times, and the latest submitted answers will be taken as your final submission.

Physical Constants:

 m_0 = 9.11 x 10⁻³¹ kg; h = 6.627 x 10⁻³⁴J.s; e = 1.602 x 10⁻¹⁹ C; k_B = 1.38 x 10⁻²³ J/K

- 1) Which one of the following relationship regarding the typical linewidths (Δv) of an LED, a **1** point Fabry-Perot laser diode (FP) and a DFB laser is correct?
 - \bigcirc $\Delta V_{IFD} < \Delta V_{FP} < \Delta V_{DFR}$
 - \bigcirc $\triangle v_{FP} < \triangle v_{LED} < \triangle v_{DFB}$
 - \bigcirc $\triangle v_{FP} < \triangle v_{DFB} < \triangle v_{LED}$
 - \bigcirc $\triangle V_{DFB} < \triangle V_{FP} < \triangle V_{IFD}$

No, the answer is incorrect.

Score: N

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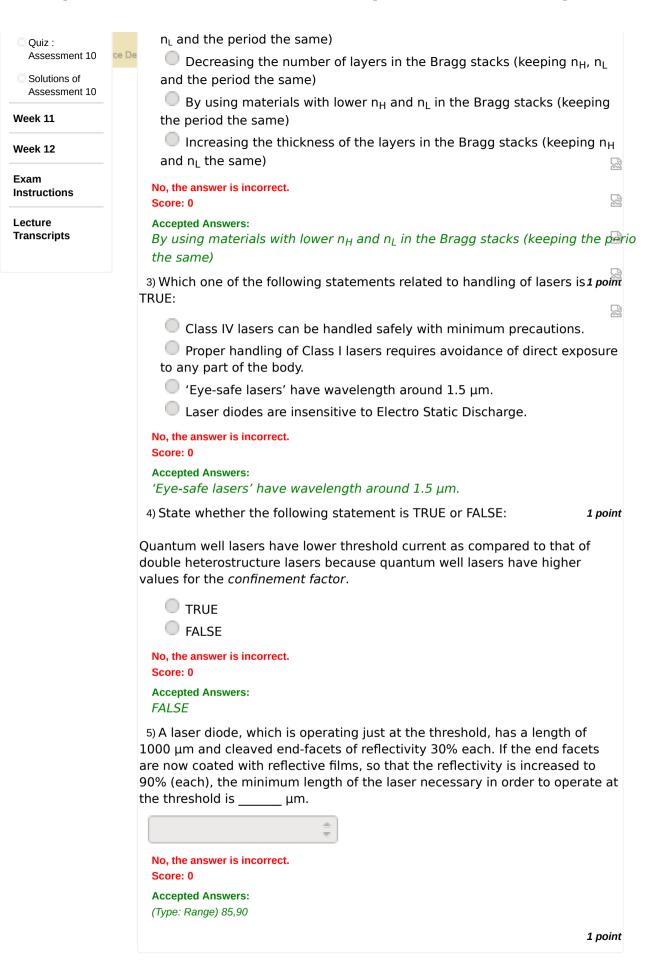
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