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reviewer4@nptel.iitm.ac.in ▼

Courses » Laser Fundamentals and Applications

Announcements **Course** Ask a Question Progress FAQ



Unit 1 - How to access the portal

Register for Certification exam

Course outline

How to access the portal

- How to access the home page?
- How to access the course page?
- How to access the MCQ, MSQ and Programming assignments?
- Quiz : Assignment 0

Week 1 - Introduction to LASERS

Week 2 - Concept of population inversion, 2-level, 3-level, and 4-level systems, Components of LASERS

Week 3 - Threshold conditions

Assignment 0

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment. **Due on 2019-02-04, 23:59 IST.**

1) The phenomenon in which the incident light falling on a surface goes back to the same medium is called _____. **0 points**

- Refraction
- Reflection
- Interference
- Diffraction

No, the answer is incorrect.

Score: 0

Accepted Answers:

Reflection

2) What is the angle between the incident and reflected rays when a ray of light is incident normally on a mirror plane? **0 points**

- 90°
- 180°
- 0°
- 45°

No, the answer is incorrect.

Score: 0

Accepted Answers:

0°

3) The ratio of Sine of angle of incidence to the Sine of angle of refraction for a pair of two media is constant. This is called _____. **0 points**

Snell's law

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Week 5 -
Mode-Locking
technique and
types of LASER

Week 6 - Types
of LASERS and
Non Linear
Optics

Week 7 -
Applications of
Lasers:
Non-linear
optics, LIDAR,
Laser
spectroscopy,
Isotope
enrichment and
separation.

Week 8 - Various
Applications of
Lasers, Laser
safety and
Summary

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Accepted Answers:*Snell's law*

4) What is it called where the parallel rays of light entering a convex lens converge at? **0 points**

- Principle axis
- Optical centre
- Radius of curvature
- Principle focus

No, the answer is incorrect.**Score: 0****Accepted Answers:***Principle focus*

5) What is the reciprocal of the focal length (in meters) called? **0 points**

- Focal plane of the lens
- Curvature of the lens
- Power of the lens
- Radius of curvature of the lens

No, the answer is incorrect.**Score: 0****Accepted Answers:***Power of the lens*

6) Calculate the wavelength of radiation emitted by an LED made up of a semiconducting material with band gap energy 2.8 eV. (1 eV = 1.602×10^{-19} Joules, 1 nm = 10^{-9} meter) **0 points**

- 44.3 nm
- 542 nm
- 443 nm
- 582 nm

No, the answer is incorrect.**Score: 0****Accepted Answers:***443 nm*

7) The colour of a light depends on its _____. **0 points**

- Wavelength
- Intensity
- Amplitude of its electric field
- All of the above

No, the answer is incorrect.**Score: 0****Accepted Answers:***Wavelength*

8) Radiation of 532 nm is being emitted from a light source. Calculate the corresponding energy. (1 eV = 1.602×10^{-19} Joules, 1 nm = 10^{-9} meter) **0 points**

- 2.43 eV
- 2.33 eV



1.75 eV

1.33 eV

No, the answer is incorrect.

Score: 0

Accepted Answers:

2.33 eV

9) Which of the following photons will possess highest energy?

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Infrared

Ultra Violet

X-ray

Gamma ray

No, the answer is incorrect.

Score: 0

Accepted Answers:

Gamma ray

10) What does the acronym MASER stand for?

0 points

Microwave Amplification by Stimulated Emission of Radiation

Molecular Absorption by Stimulated Emission of Radiation

Multiphoton Absorption by Stimulated Emission of Radiation

Microwave Amplification by Spontaneous Emission of Radiation

No, the answer is incorrect.

Score: 0

Accepted Answers:

Microwave Amplification by Stimulated Emission of Radiation

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