

Course: MPHY 211 PHYSICS OF NANO MATERIAL

Assignment: 1

Due date of submission: 11/09/2017

Instructions:

1. Write the response to the assignment in your own handwritings.
2. Submit the response to your H.O.D. within the due date.
3. Write your name, program and enrollment no. clearly at the top of the page.

Q1 (a) Explain the Nano science and Nano technology with examples & Discuss in detail C.N.T (Carbon Nano Tube).

Q1 (b) Explain Debye-Scherer equation. What is its significance in the analysis of nanoparticles?

Q2 (a) Explain with Diagram Scanning Tunneling microscope in detail.

Q2 (b) Explain:-

(a) Atomic scattering factor.

(b) Crystal structure factor.

Course: MPHY213 SEMI CONDUCTOR PHYSICS

Assignment: 1

Due date of submission: 11/09/2017 Instructions:

1. Write the response to the assignment in your own handwritings.
2. Submit the response to your H.O.D. within the due date.
3. Write your name, program and enrollment no. clearly at the top of the page.

Q1 (a) Explain the effect of temperature on P-N junction diode.

Q1 (b) Explain construction and working of PIN diode.

Q2 (a) Discuss in detail the effect on index profile on Propagation.

Q2 (b) What is MESFET? Explain *IV* Characteristic of MESFET.

Course: MPHY 212 NUCLEAR PHYSICS

Assignment: 1

Due date of submission: 11/09/2017 Instructions:

1. Write the response to the assignment in your own handwritings.
2. Submit the response to your H.O.D. within the due date.
3. Write your name, program and enrollment no. clearly at the top of the page.

Q1 (a) What is the evidence for the shell structure of the nucleus. Explain Shell model of nucleus.

Q1 (b) Explain the binding energy curve for nuclei and its consequences.

Q2 (a) Explain the dependence of n-p force.

Q2 (b) Explain the diffusion of fast neutrons and Fermi age equations.

Fiber Optics and Applications

Assignment No: 01

Due Date of Submission: 11/09/2017

Sub Code: - MPHY-214

Instructions:

- Write the responses to the assignment in your own handwriting.
- Submit the responses to your HOD with in the due date.
- Write your Name, Programme & Enrolment No. Clearly at the top of the page.

Question: 01

- a) Explain Excimer lasers and semi-conductor laser.
- b) Explain in detail light transmission systems in endoscopes.

Question: 02

- a) Explain the application of laser and fibre optics in tumor surgery.
- b) As you are aware of core and cladding. Explain the difference between two with diagram.

Energy Audit, Conservation and Management

Assignment No: 01

Due Date of Submission: 11/09/2017

Sub Code: - MPHY-215

Instructions:

- Write the responses to the assignment in your own handwriting.
- Submit the responses to your HOD with in the due date.
- Write your Name, Programme & Enrolment No. Clearly at the top of the page.

Question: 01

- a) What is Energy Audit and explain its necessity in present scenario?
- b) Explain the various energy conservation schemes in detail.

Question: 02

- a) Explain the net present work method used for analysis of economics in energy management.
- b) Explain the methods used for energy saving in domestic buildings.