Course: MPHY 211 PHYSICS OF NANO MATERIAL

Assignment: 2

Due date of submission: 23/10/2017

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) Discuss in Detail Physical Technique of synthesis of nanomaterial.

Q1 (b) As you are aware of nanomaterial .Compare the magnetic properties of bulk and nanomaterials.

Q2 (a) Describe the formation of porous silicon.

Q2 (b) Explain Moor's Law in detail.

Course: MPHY 212 NUCLEAR PHYSICS

Assignment: 2

Due date of submission: 23/10/2017 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.
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Q1 (a) As you are aware of the general characteristics of nuclear forces. Discuss the Meson theory of nuclear forces.

Q1 (b) Explain the biological and other effects of nuclear radiations.

Q2 (a) Explain the magnetic mirror and Lawson criterion.

Q2 (b).Discuss briefly on nuclear size, spin and binding energy.

Course: MPHY213 SEMI CONDUCTOR PHYSICS

Assignment: 2

Due date of submission: 23/10/2017 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 working of Tunnel diode?

Q1 (b) As you are aware of reverse break down? Explain the construction and working of Zener diode.

Q2 (a) Discuss the break down mechanisms in PN Junction.

Q2 (b) Explain the construction and working of MOSFET.

Fiber Optics and Applications

Assignment No: 02

Due date of submission: 23/10/2017

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 the block diagram fibre optics gastric photo coagulator.

b) Describe in brief fibre optics sensor for biomedical applications.

Question: 02

a) Refractive index is very important for multi-mode and single mode fiber with neat and clean diagram justify it.

b) Write short note on :

i) Fibre materials.
j) Step index fibre structure.

Energy Audit, Conservation and Management

Assignment No: 02

Due date of submission: 23/10/2017

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) Explain in detail the difference between conservation and energy efficiency and its relevance.

b) Explain the role of manager in energy management and discuss clearly his functions and duties?

Question: 02

a) Discuss the working of power analyzer and its role energy management.

b) Write a short note on:
(i) Energy efficiency electric motors. (ii) Life cycle costing analysis.