

Code.No: NR10201

NR

SET-1

I - B.TECH EXAMINATIONS, DECEMBER - 2010**APPLIED PHYSICS****(COMMON TO EEE, ECE, CSE, CSIT, EIE, BME, E.CON.E, ETM, ECC, CSS)****Time: 3hours****Max.Marks:80**

Answer any FIVE questions
All questions carry equal marks

1. What are the salient features of free electron gas theory? Explain about free electron gas in one-dimensional. [16]
2. (a) Distinguish between the metals, semiconductors and insulators.
(b) Write short notes on Hall-effect. [8+8]
3. Describe the different types Polarizations in-detail and derive an expression for ionic Polarization. [16]
4. (a) Distinguish between Paramagnetic, Dia-magnetic and Ferro-magnetic substances.
(b) Distinguish between Hard and Soft magnetic materials. [8+8]
5. (a) Distinguish between drift and diffusion currents in a semiconductor.
(b) Distinguish between Intrinsic and Extrinsic semiconductors. [8+8]
6. Explain about the semiconductor laser and its characteristics in-detail. [16]
7. Write short notes on Photo diodes, Photo transistors. [16]
8. Write an essay on super conductivity. [16]

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SET-2

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SET-3

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8. (a) Distinguish between Paramagnetic, Dia-magnetic and Ferro-magnetic substances.
(b) Distinguish between Hard and Soft magnetic materials. [8+8]

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SET-4

I - B.TECH EXAMINATIONS, DECEMBER - 2010**APPLIED PHYSICS****(COMMON TO EEE, ECE, CSE, CSIT, EIE, BME, E.CON.E, ETM, ECC, CSS)****Time: 3hours****Max.Marks:80**

Answer any FIVE questions
All questions carry equal marks

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