

Modi Institute of Technology, Kota
Ist Midterm
III Year VI Sem
Branch: Electrical Engineering
Sub: Advanced Power Electronics

Time:1 Hr

MM:[10]

Attempt any two questions. Each question carries five marks.

Q1. Discuss the operation of single phase A.C. controller with RL load.

Q2. A three phase bridge inverter is operated in 180 degree conduction mode. Draw the output line voltage waveform and obtain RMS value of line voltage.

Q3. Draw and explain the control circuit block diagram for a cycloconverter with non-circulating current mode.

*****Best of Luck*****

Modi Institute of Technology, Kota
Ist Midterm
III Year VI Sem
Branch: Electrical Engineering
Sub: High Voltage Engineering

Time:1 Hr

MM:[10]

Attempt any two questions. Each question carries five marks.

Q1. Explain Townsends current growth Equation(Primary & secondary).

Q2. Write a short note on :

- a) Suspended Particle Theory
- b) Cavitation & Bubble Theory

Q3. Explain Marx circuit for impulse voltage generation.

*****Best of Luck*****

Modi Institute of Technology, Kota
Ist Midterm
III Year VI Sem
Branch: Electrical Engineering
Sub: Switchgear and Protection

Time:1 Hr

MM:[10]

Attempt any two questions. Each question carries five marks.

Q1. What do you mean by amplitude and phase comparator? Explain the duality between amplitude and phase comparator?

Q2. Explain the working of static directional over-current relay?

Q3. Explain static impedance relay using amplitude and phase comparator?

*****Best of Luck*****

Modi Institute of Technology, Kota
Ist Midterm
III Year VI Sem
Branch: Electrical Engineering
Sub: Smart Grid Technology

Time:1 Hr

MM:[10]

Attempt any two questions. Each question carries five marks.

Q1. Define Smart Grid? Explain the functions & opportunities of smart grid?

Q2. Discuss briefly the concept of Resilient & self healing grid?

Q3. Explain the principle & operation of phase shifting transformer with the help of suitable diagram?

*****Best of Luck*****

Modi Institute of Technology, Kota
Ist Midterm
III Year VI Sem
Branch: Electrical Engineering
Sub: Power System Instrumentation

Time:1 Hr

MM:[10]

Attempt any two questions. Each question carries five marks.

Q1. Explain the different types of errors in measurement And discuss how can these errors be minimized.

Q2. Define the term “ Limits of error”. Also derive the expression for relative limiting error.

Q3. Explain the strain gauge with neat diagram for measurement of gauge factor.

*****Best of Luck*****

Modi Institute of Technology, Kota
Ist Midterm
III Year VI Sem
Branch:EE/EEE
Sub: Modern Control Theory

Time:1 Hr **MM:[10]**

Attempt any two questions. Each question carries five marks.

Q1. Explain the Concept of Linearity ?

Q2. Find the inverse of Given Matrix

$$\begin{pmatrix} 1 & 8 & 3 \\ 0 & 2 & 5 \\ 9 & -5 & 3 \end{pmatrix}$$

Q3. What is the difference b/w Modern Control Theory and Conventional Control Theory ?

*****Best of Luck*****