

# **Sai Nath University**

## **Assignment For Diploma in Electrical Engineering 5<sup>st</sup> Sem.**

The Assignment will consist of two parts, A and B. Part A will have 5 short answer questions(40-60 words) of 4 marks each. Part B will have 2 long answer questions of 10 marks each

### **All questions are compulsory.**

These Assignments should be completed and submitted in written form by the student to his/her respective Faculty/ Examiners. Assignment Submission Dates are:

➤ Nov-17

### **List Of Suggested Questions**

The list of suggested questions are for students to practice. Although optional, we recommend that students solve these questions, as they will help them in preparing for exams as well as in clearing the important concepts of the subject.

### **List of Practical and suggested practical's**

The list of practical's should be done by the students in their Lab Sessions. These are the basic practical's, which each student should be able to do himself independently. While the list of suggested practical's are optional, but it is recommended that students should perform those practical so as to have a thorough knowledge of the subject

### **Education Delivery Schedule (EDS)**

As per University Semester scheme, the minimum contact hours of each paper has been Divided into two hours theory and practical class.

The faculty will maintain this attendance paper wise for his/her batch.

**Subject Code****Subject Name****DEEE-501****Industrial Organization and  
Supervisory Management****DEEE-502****Electrical Machine -2****DEEE-503****Instrumentation and Control****DEEE-504****Electrical Power System 2****DEEE-505****Electrical Installation System2****DEEE-506****Practical Electrical Machine 2****DEEE-507****Practical Electrical Power  
System 2**



## **SAI NATH UNIVERSITY**

### **Cover page of Assignment**

ID NUMBER .....

NAME .....

COURSE Diploma Engineering.....

STREAM Electrical.....

SEM 5<sup>ST</sup> .....

SUBJECT CODE .....

SUBJECT NAME .....

**Assignments will be completed by the Student in his/her own handwriting.**

**DEEE-501**  
**Industrial Organization and Supervisory Management**  
**Part A**

1. Explain the Indian industry and its stages ?
2. Explain the fundamental and growth of the Indian manufacturing industry ?
3. Explain the stages of scientific technological revolution in india ?
4. Define major area of Indian industry ?
5. Explain GATT ?

**Part B**

1. What is partnership , explain its features ?
2. What do you understand by factory act , explain industrial act ?

**DEEE-502**  
**Electrical Machine -2**

**Part A**

1. Write a brief note on double cage rotor induction motors.
2. Explain the speed control of three phase induction motor by pole changing.
3. Explain the rotor rheostat control of 3 phase slip ring induction motor.
4. Explain the operation of shaded pole induction motor with neat diagram.
5. Explain the principle and operation of AC series motor.

**Part B**

1. Draw the equivalent circuit and phasor diagram of a synchronous motor.
2. Explain the significance of V and inverted V curves.

**DEEE-503**  
**Instrumentation and Control**  
**Part A**

1. Describe the construction and working of dual trace CRO with suitable block diagram.
2. Draw and explain the circuit of a ramp type digital voltmeter.
3. Explain the functioning of a time-base generator in a CRO.
4. Explain briefly with the help of neat diagrams the use of electronic multimeter.
5. Describe the construction and working of a co-ordinate type ac potentiometer. How is it standardized ?

**Part B**

6. Write down the methods of protection of transformer
7. Write down the methods of protection of motor

**DEEE-504**  
**Electrical Power System 2**  
**Part A**

1. Give a brief note on the Single line Diagram of power system
2. write short note on impedance diagram representation of power system
3. Give a brief note on reactance diagram representation of a power system
4. What are the main kinds of faults in power system
5. Give a brief note on Line to Ground Fault

**Part B**

1. Explain the different types of conductors used for over head transmission lines.
2. Define regulation of a short 3-phase transmission system and develop an expression for approximate voltage regulation.

## **DEEE-505**

### **Electrical Installation System2**

#### **Part A**

1. Write the principal of circuit design.
2. What is earth wires ? Why earthing is essential ?
3. Define size of earth wire and earth plates.
4. What is use of batteries in substation ?
5. What is difference between neutral earthing and solid earthing ?

#### **Part B**

6. What is transformers ? Define transformers oils.
7. Define the construction induction motor.

## **DEEE-506**

### **Practical Electrical Machine 2**

#### **Part A**

8. To study the oil testing in transformer
9. To study the starting of 1- $\phi$  induction motor.
10. To study the short and open circuit test on 1- $\phi$  transformer.
11. Connection of starting of 3- $\phi$  induction motor using star-delta starter.
12. To study speed control of DC motor.

#### **Part B**

1. To study of slip and torque characteristic of 3- $\phi$  Induction Motor.
2. To investigate the relation between the ratio of
  - a. Output and input voltage
  - b. Number of turns in the secondary coil and primary coil.

**DEEE-507**  
**Practical Electrical Power System 2**  
**Part A**

1. Explain Different types of Relay with Diagram
2. Elaborate Different Electrical Instrument used in Installation
3. Why Neutral Grounding is important? Explain its type
4. Explain working & connection of CT & PT 2 Draw Diagram.
5. Define & Explain Working HUDC ?

**Part B**

6. Visit of Substation B.L.W(66 KU).
7. Explain different type of circuit breaker with its type & proper diagram.