

Assignment For Diploma in electrical Engineering 5th 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:

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 practicals 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
DIM-51	Industrial Management and Entrepreneurship Development
DEE – 51	Switch Gear And Protection
DEE - 52	Industrial Elex. & Control
DEE - 53	Electrical Machine II
DEE-54	Renewable Sources of Energy

JS UNIVERSITY

Cover page of Assignment

ID NUMBER

NAME

COURSE Diploma Engineering

STREAM ELECTRICAL.....

SEM 6th

SUBJECT CODE

SUBJECT NAME

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

DIPLOMA 5th SEMESTER

ELECTRICAL ENGINEERING

Industrial Management and Entrepreneurship Development

SEC A

- Q 1** Explain major characteristics of Scientific Management and Human Relations School of thought. What are the limitations of each school of thought ?
- Q 2** Explain the steps involved in decision making. What are the merits and de-merits of group decision making.
- Q 3** What is the purpose of communications ? Discuss various types of communications flow in an organization. What are the barriers to effective communications ?
- Q 4** Discuss the process of control and its benefits. What are the suitable areas for control ? Suggest techniques/aids you would like to use for control.
- Q 5** Write salient features of any two of the following Acts :
- (a) Factories Act, 1948
 - (b) Payment of Wages Act, 1936
 - (c) The Air (Prevention and Control Act, 1947)

Sec B

- Q 1** Write short notes on any two of the following :
- (a) Managerial grid.
 - (b) Boundary less Organization
 - (c) Theory 'X' and Theory 'Y'.
- Q2** What do you understand by Industrial Management. State its activities in present day production, business and service organization.

DIPLOMA 5th SEMESTER

Switch Gear & Protection

SEC A

- Q 1** CB is rated as 2500A, 1500MVA, 33KV, 3secs; 3-phase oil C.B. Determine the rated symmetrical breaking current, rated making current, short time rating and rated service voltage.
- Q 2** Why is current chopping not a serious problem with vacuum circuit breakers ?
- Q 3** Describe the construction, principle of operation and applications of Buchholz relay. Why is this form of protection an ideal protection scheme ?
- Q 4** Explain how you provide directional features :
- (a) impedance relay, and
 - (b) reactance relay. Explain why the directional feature provided for impedance relay cannot be used for a reactance relay ?
- Q 5** What is meant by 3-Zone protection ? Give such 14 schemes of protection for
- (a) short length lines,
 - (b) medium length lines and
 - (c) long lines. Give schematic diagrams of contact circuits and explain their principle of operation for these schemes

Sec B

- Q 1** Explain the protective characteristics of a lightning arrester against the withstand characteristics of equipment on a voltage-time curve.
- Q 2** What do you understand by time multiplier setting and plug multiplier setting in an over current relay ? Explain with the help of relay characteristic. Show why an IDMT characteristic is chosen in preference to simple inverse time characteristic.

DIPLOMA 5th SEMESTER

ELECTRICAL ENGINEERING

Industrial Elex. & Control

Assignment

SEC A

- Q 1** Define stability. What do you understand by absolute and relative stability ?
- Q 2** Explain ON-OFF control scheme with example and draw its o/p response. What are its advantages and disadvantages ?
- Q 3** What do you understand by the term "resetrate" and "integral wind up" ?
- Q 4** Explain the working of a 2 phase a.c. servo motor. Also explain the constructional differences w.r.t. a normal induction motor.
- Q 5** Explain the working of a potentiometer error detector with a diagram and an example.

Sec B

- Q 1** Write short notes on any four :

- | | |
|--|--------------------------|
| (a) Advantages of Automatic Control System | (b) Gain Margin |
| (c) Location of Poles and Stability. | (d) Proportional Offset. |
| (e) D.O.F. of a Robot | |
| (f) Advantages and Disadvantages of a Robot over a human operator. | |

- Q 2** Draw and explain the working of Automatic Control System with the help of a block diagram.

DIPLOMA 5th SEMESTER

ELECTRICAL ENGINEERING

Electrical Machine II

Assignment

SEC A

- Q 1** Why starters are necessary for starting induction motor ?
- Q 2** Explain what is meant by stand still reactance of induction motor rotor ? How does it vary with speed ?
- Q 3** Give reasons for low efficiency of hysteresis and reluctance motors.
- Q 4** What is advantage of a capacitor start motor over a resistance split phase motor ?
- Q 5** What is damper winding ? What is the function of it and where it is located

Sec B

- Q 1** What is a distributed winding and what is distribution factor ?
- Q 2** What are servomotors and list their characteristics ? State the various applications of a stepper motor.

DIPLOMA ELECTRICAL 5TH SEM.

Renewable Sources of Energy

PART-A

Q1 - What are the different energy conservation methods that can be adopted in power plants ?

Q2- Discuss energy crisis a socio-economical aspect.

Q3-Describe the merits of using steam in industries for energy conversion.

Q4-Mention the types of lamps used in electric lighting system.

Q5-Define energy audit. Discuss energy management with the help of example.

PART-B

Q1-Explain renewable energy, mention various forms of the same and elaborate on its potential.

Q2-What is clean development mechanism (CDM) ? Explain with example.