

No. of Printed Pages : 2  
Roll No. ....

180944/170944/  
120944/030944

**4th Sem. 4**  
**Branch: Elect. Power Station Engg., Elect. & Eltx. Engg.**  
**Sub : Electrical Engineering Design & Drawing-II**

Time : 3 Hrs.

M.M. : 100

**SECTION-A**

**Note: All Questions are compulsory.**

Q.1 (I) What is the difference between earthing and grounding? (CO2) 3 marks

(ii) What is the purpose of earthing? (CO2) 2 marks

(iii) Why are the metal frames of electrical apparatus earthed. (CO2) 5 marks

(iv) Explain Indian standard specifications and Indian Electricity rules for earthing. (CO2) 5 marks

Q.2 Draw the schematic and wiring diagram for the starting 3 phase induction motor in sequence one after another with a defined time delay. (CO1) 25 marks

OR

Draw the schematic and wiring diagram of manually Star Delta Starter for a three phase induction motor.

(CO1) 25 marks

Q.3 Draw the diagram of pipe earthing Also provide the list of material used for pipe earthing. (CO1) 20 marks

Q.4 Draw the key diagram of the 33KV substation along with symbols used for different equipment. (CO4) 20marks

Q.5 a) Explain the following AUTOCAD commands. (CO3) 10 marks

i) New ii) Move

iii) Trim iv) Arc

v) Erase

b) Draw the wiring diagram of DOL starting with a three phase induction motor. (CO3) 10 marks

(1)

180944/170944/  
120944/030944

(1800)

(2)

180944/170944/  
120944/030944