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Roll No.....

120944/30944

4th Sem, **Branch :** Electrical Engg.

Subject : Electrical Engg. Design & Drawing-II

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note : Multiple choice questions. All questions are compulsory.

- Q.1**
- (i) Why are the metal frames of electrical apparatus earthed? (CO-3) 2 marks
 - ii) Enlist the equipment that shoud be connected to earth. (CO-2) 3 marks
 - (iii) Explain the factors on which earth resistance value depends. (CO-2) 5 marks
 - (iv) Describe the method used for reducing earth resistance. (CO-2) 5 marks

- Q.2** Draw the schematic and wiring diagram for an automatic star delta starter of a three phase induction motor. Also provide overload and short circuit protection to the motor. (CO-1) 25 marks

OR

Draw the schematic and wiring diagram for a process in which two three phase induction motors are to be started in sequence ie one after the other. The second motor can be stopped but when first motor is stopped both the motors should stop.

(CO-1)

(1)

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Q.3 Draw the Key Diagram of 11KV/440V substation along with a list of various symbol of equipments used. (CO-4) 20 marks

Q.4 (a) Explain the following Auto CAD commands (CO-5) 10 marks

- i) New
 - ii) Export
 - iii) Erase
 - iv) List
 - v) Explode
- (b) Draw the schematic and wiring diagram for D.O.L Starting of a 3 phase induction motor (CO-1) 10 marks

Q.5 Draw the diagram of pipe earthing Also provide the list of material used for pipe earthing. (CO-3) 20 marks

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