Lesson Plan

Name of Faculty :- **DHARAM PAL**

Discipline :- **ELECTRICAL ENGINEERING**

Semester :- **4th**

Subject :- **ELECTRICAL ENGG. DESIGN & DRAWING-II**

Lesson Plan Duration:- 15 Week

Work load (Lecture/Practical) per week (55 minutes) : Lectures-00, Practicals-06

Week	Theory		Practical	
	Lecture Day	Topic	Practical Day	Topic
1st	1st	Introduction about the syllabus of the subject & scope of the subject.		
	2nd	**Unit-I Contractor Control Circuits** **Sheet No. 1** (i) Draw schematic & power wiring diagram of Direct On Line starting of a 3-phase induction motor with specification of contractor. (ii) Draw schematic & power wiring diagram of Direct On Line remote starting of a 3-phase induction motor from two different location's with specification of contractor.		
2nd	1st	**Sheet No. 2** (i) Draw schematic & power wiring diagram of 3-phase induction motor getting supply from two different feeders having Electrical interlocking with specification of contractor. (ii) Draw schematic & power wiring diagram of 3-phase induction motor getting supply from two different feeders having Electrical interlocking as well as mechanical interlocking with specification of contractor		

	2nd	Revision of sheet No. 1 & Sheet No. 2.		
3rd	1st	**Sheet No. 3** (i) Draw schematic & power wiring diagram of sequential starting of two 3-phase induction motor manually. (ii) Draw schematic & power wiring diagram of sequential starting of two 3-phase induction motor automatically using Time Delay Relay with specifications.		
	2nd	**Sheet No. 4** (i) Draw schematic & power wiring diagram for forwarding/reversing of 3-phase induction motor. (ii) Draw schematic & power wiring diagram for water level control of 3-phase induction motor using limit switches with specifications.		
4th	1st	Revision of sheet No. 3 & Sheet No. 4.		
	2nd	**Sheet No. 5** (i) Draw schematic & power wiring diagram for two speed control of 3-phase induction motor manually having electrical interlocking with specifications of contractors. (ii) Draw schematic & power wiring diagram for two speed control of 3-phase induction motor automatically using Time Delay Relay with specifications of contractors.		
5th	1st	**Sheet No. 6** (i) Draw the neat connection diagram of manually operated star-Delta starter for 3-phase induction motor. ii) Draw schematic & power wiring diagram of Automatic Star Delta Starter for 3-phase induction with specifications of contractors.		
	2nd	Revision of sheet No. 5 & Sheet No. 6.		

6th	1st	**Unit-II Earthing** **Sheet No. 7** (i) Draw the neat sketch of Pipe earthing showing all relevant dimensions with the list of materials & costing required for the pipe earthing.		
	2nd	**Ist Sessional test.**		
7th	1st	**Sheet No. 8** (i) Draw the neat sketch of Plate earthing showing all relevant dimensions with the list of materials & costing required for the plate earthing.		
	2nd	**Sheet No. 9** Draw the neat sketch of Substation earthing layout and earthing materials required.		
8th	1st	Revision of sheet No. 7 & Sheet No. 8.		
	2nd	Question & Answer regarding Earthing.		
9th	1st	**Sheet No. 10** (i) Draw the neat sketch of key diagram of 11Kv sub-station with the table of symbols used. (ii) Draw the neat sketch of key diagram of 33Kv sub-station with the table of symbols used.		
	2nd	Revision of sheet No. 9 & Sheet No. 10.		
10th	1st	**Sheet No. 11** (i) Draw the neat sketch of key diagram of 66Kv sub-station with the table of symbols used. (ii) Draw the neat sketch of key diagram of 132Kv sub-station with the table of symbols used.		
	2nd	Question & Answer regarding Earthing.		
	1st	**Sheet No. 12** (i) Draw the full sectional possible views of End Cover of induction motor showing all relevant		

11th		dimensions. (ii) Draw the half sectional possible views of End Cover of induction motor showing all relevant		
	2nd	**2nd Sessional test.**		
12th	1st	**Sheet No. 13** (i) Draw the full sectional possible views of Rotor of squirrel cage induction motor showing all relevant dimensions. (ii) Draw the full sectional possible views of Terminal Plate of induction motor showing all relevant dimensions.		
	2nd	Revision of sheet No. 11 & Sheet No. 12.		
13th	1st	**Sheet No. 14** Draw the full sectional & half sectional possible views of Field coil of DC motor.		
	2nd	Revision of sheet No. 13 & Sheet No. 14.		
14th	1st	**Sheet No. 15** (i) Draw the views of Motor body (induction motor) as per IS specifications.		
	2nd	**Sheet No. 15** (ii) Draw the full sectional possible views of Slip rings of 3-phase induction motor.		
15th	1st	Clarification about any doubts raised by the students regarding whole syllabus of the subject.		
	2nd	**3rd Sessional test.**		