

GOVERNMENT CO-ED POLYTECHNIC, RAIPUR

DEPARTMENT OF ELECTRICAL ENGINEERING

LESSON PLAN

Session:-

Semester:-**3rd**

Session start date as per University Calendar:-

Course Name:- **Electrical Drawing and CAD**

Course Code:-

Name of Subject teacher:-

Unit -1 Symbols and Codes

Class Room Instruction (CI)

**No. of
Periods**

Remarks

ISI Symbols in electrical engineering

3

Conventions for circuit and schematic representation of electrical and electronic components, instruments and equipment

3

Number of periods planned (CI + LI) : 6

Number of periods actually taken :

Unit – 2 Installation, mounting and layout of power and safety equipment

Class Room Instruction (CI)

**No. of
Periods**

Remarks

2.1 Different types of mountings for static(transformers):pole and ground mounted

3

2.2 Mountings for dynamic equipment (electrical rotating machines)

3

2.3 Substation layout with circuit breaker, on-load and off-load isolators, Buchholz's relay and other protective devices of transformers up to 2MVA Plate and Pipe earthing Extension of range using shunt, multiplier, CT, PT

4

Number of periods planned (CI + LI) : 10

Number of periods actually taken :

Unit -3 Constructional Features of Electrical Machines

Class Room Instruction (CI)	No. of Periods	Remarks
3.1 Parts of a transformer up to 2 MVA	1	
3.2 DC Machines: pole, pole shoe, simplex lap and wave winding	1	
3.3 Alternators: salient and cylindrical rotor	1	
3.4 Induction motors: squirrel cage and slip ring	1	
3.5 AC Machine winding: full pitch winding and short pitch winding	2	

Number of periods planned (CI + LI) : 6

Number of periods actually taken :

Unit -4 Domestic and Commercial wiring for LV Equipment

Class Room Instruction (CI)	No. of Periods	Remarks
4.1 Illumination fixtures: types and Internal circuit diagram	2	
4.2 Control wiring of go down, staircase, street light and for houses Wiring of energy meters for domestic and commercial loads	4	
4.3 Internal Wiring of Refrigerators and Air conditioners Starter, 4-point starter Wiring diagram of submersible and centrifugal pumps	4	

Number of periods planned (CI + LI) : 10

Number of periods actually taken :

Unit -5 Antifriction Bearings

Class Room Instruction (CI)	No. of Periods	Remarks
5.1 Computer Aided Drawing: Draw command, edit command, Coordinate entry, Osnap, Layers, Dimensioning, Text in a drawing, Ortho command, Zoom command and plot command	4	
5.2 General electrical and electronic symbols, Layouts of domestic,	3	
5.3 Commercial and industrial wiring (2D only) Cross Sectional view of: Fuse and cables (2D) D.C. Motor and their parts Single phase Transformer, Power transformer Induction Motor	6	

Insulators, Circuit Breakers, Lightning Arresters
11 kV Pole Mounted Substation
Single line diagrams of
11kV/33 kV Substation

Number of periods planned (CI + LI) : 13
Number of periods actually taken :

Number of Total periods planned : 45
Number of Total periods actually taken :

Subject Teacher :

HOD
Department of Electrical