Lesson Plan

Name of faculty : Sita Devi

Discipline : Electronics Engineering

Semester : 7th

Subject : utilization of electrical energy

Lesson plan duration : 15 weeks

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| **Week** | **Lecture** | **Topic (Including Assignment / Test) : Planned** | **Actually covered on**  **(date)** | **Teacher’s**  **Sign** | **HOD’s Sign** | **DP’s**  **Sign** |
| 1st | 1 | Illumination: Terminology, Laws of illumination, Photometry |  |  |  |  |
| 2 | lighting calculations |  |  |  |  |
| 3 | Electric lamps – Different types of lamps |  |  |  |  |
| 2nd | 4 | LED lighting and Energy efficient lamps. |  |  |  |  |
| 5 | Design of lighting schemes |  |  |  |  |
| 6 | factory lighting |  |  |  |  |
| 3rd | 7 | flood lighting – street lighting |  |  |  |  |
| 8 | Electric Heating |  |  |  |  |
| 9 | Types of heating and applications |  |  |  |  |
| 4th | 10 | Electric furnaces |  |  |  |  |
| 11 | Resistance, inductance and Arc Furnaces |  |  |  |  |
| 12 | Electric welding |  |  |  |  |
| 5th | 13 | sources of welding |  |  |  |  |
| 14 | Electrolytic processes |  |  |  |  |
| 15 | electro-metallurgy and electro-plating |  |  |  |  |
| 6th | 16 | Refrigeration-Domestic refrigerator and water coolers |  |  |  |  |
| 17 | Air -Conditioning Various types of air conditioning system and their applications |  |  |  |  |
| 18 | smart air conditioning units - Energy Efficient motors |  |  |  |  |
| **7th** |  | **1stSessionals** |  |  |  |  |
| 8th | 19 | Electrolytic Processes: Introduction, Electrolyte, Ionization |  |  |  |  |
| 20 | Definition of various terms used in Electrolysis |  |  |  |  |
| 21 | Faradays' laws of Electrolysis |  |  |  |  |
| 9th | 22 | Extraction of Metals, Refining of metals, Electro Deposition |  |  |  |  |
| 23 | Power Supply for Electrolytic Processes |  |  |  |  |
| 24 | Traction System |  |  |  |  |
| 10th | 25 | Requirement of an ideal traction system |  |  |  |  |
| 26 | power supply, traction drives |  |  |  |  |
| 27 | electric braking |  |  |  |  |
| 11th | 28 | Train movement (speed time curve) |  |  |  |  |
| 29 | simplified speed time curve |  |  |  |  |
| 30 | average speed and schedule speed |  |  |  |  |
| 12th | 31 | Use of AC series motor |  |  |  |  |
| 32 | Induction motor for traction |  |  |  |  |
| 33 | Traction motor control |  |  |  |  |
| 13th | 34 | DC series motor control |  |  |  |  |
| 35 | multiple unit control |  |  |  |  |
| 36 | braking of electric motors |  |  |  |  |
| **14th** |  | **2ndSessionals** |  |  |  |  |
| 15th | 37 | revision |  |  |  |  |
| 38 | Refining of metals |  |  |  |  |
| 39 | Electro Deposition |  |  |  |  |