**GBN Govt. Polytechnic Nilokheri, Karnal**

**Electrical Engineering Department**

**Lesson plan**

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| **Name of Faculty** | **Sh. Naveen Sharma** |
| **Discipline** | **Electrical Engineering** |
| **Semester** | **4th** |
| **Subject** | **IMEE** |
| **Lesson Plan Duration** | From March 2023 to June 2023 |
| **Work load [Theory + Practical] Per Week** | **[04]** |

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| **Week** | **Day** | **Theory Topic/ Assignment/ Test** |
| **1st** | **1** |  **discussion of learning outcomes** |
| **2** | **Unit-1 Tools and accessories introduction Tools required for maintenance and repair work** |
| **3** | **IER rules** |
| **4** | **Safety codes ,accidents and its causes. Artificial respiration.** |
| **2nd** | **1** | **Unit 2- Installation of transmission and distribution lines.** |
| **2** | **Erection of steel structures, jumpers tee off points and dead ends.** |
| **3** | **Crossing of roads, streets, power/telecommunication lines, railway line crossings.** |
| **4** | **Earthing of transmission lines and guarding, spacing of conductors.** |
| **3rd** | **1** | **Suspension and strain insulators, birds guards. Anticlimbing devices.** |
| **2** | **Danger plates etc.** |
| **3** | **Laying of service lines, earthing provision of service lines, installation of energy meters.** |
| **4** | **Laying of underground cable, transportation and handling of cables** |
| **4th** | **1** | **Laying of cable methods.** |
| **2** | **Laying of cables.** |
| **3** | **Laying of cables cont.** |
| **4** | **Revision/problem solution.** |
| **5th** | **1** | **Handling of transformer.** |
| **2** | **Substation and its types.** |
| **3** | **Above will continue.** |
| **4** | **Testing of electrical motors.** |
| **6th** | **1** | **Revision/Problem solution** |
| **2** | **Motor control centres, power control centres.** |
| **3** | **Lighting arrangements., pre installation checks drying out.** |
| **4** | **Any left out topic/students problem discussion** |
| **7th** | **1** | **Class test** |
| **2** | **Evaluation and display of marks.** |
| **3** | **Unit 3 introduction of maintenance** |
| **4** | **Authorized person, danger notice and caution notice.** |
| **8th** | **1** | **Permit to work.** |
| **2** | **Temporary earthing cancellation of permit to work.** |
| **3** | **Patrolling and inspection of lines.** |
| **4** | **Special and night inspections.** |
| **9th** | **1** | **Fault location using meggar.** |
| **2** | **Fuses on service lines, dim and flickering lights.** |
| **3** | **Revision of above.** |
| **4** | **Class Test/Assignment** |
| **10th** | **1** | **Evaluation and Display of marks.** |
| **2** |

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| **Maintenance of distribution of transformers** |

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| **3** | **Checking of insulation resistance, BDV oil test.** |
| **4** | **Grid substations, busbars.HT/LT.** |
| **11th** | **1** | **Power transformers.** |
| **2** | **Students any problem.** |
| **3** | **Any other left out topics**  |
| **4** | **Sub station visit. Tentative class/ sessional test -2** |
| **12th** | **1** | **Evaluation/display of marks.** |
| **2** | **Over hauling of motors. Preventive maintenance.**  |
| **3** | **Trouble shooting of electric motors.** |
| **4** | **Domestic installation introduction.** |
| **13th** | **1** | **Testing of electrical installation.** |
| **2** | **Testing of electrical insulation to earth.** |
| **3** | **Testing of insulation and resistance between conductors.** |
| **4** | **Continuity or open circuit test.** |
| **14th** | **1** | **Any left topic.** |
| **2** | **Students problem solution.** |
| **3** | **Home assignment copy checking.** |
| **4** | **Home assignment copy checking.** |
| **15th** | **1** | **Class/sessional 3** |
| **2** | **Evaluation and display of marks.** |
| **3** | **Students problem discussion/previous hsbte paper discussion.** |
| **4** | **Revision/Problem solution** |
| **16th** | **1** | **PTM.** |
| **2** | **Checking of copies .** |
| **3** | **Revision/Problem solution** |
| **4** | **Previous year HSBTE Question Paper Solution** |
| **5** | **Previous year HSBTE Question Paper Solution** |