

P.C.I.E.T., CHHENDIPADA, DIST- ANGUL

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH : ELECTRICAL ENGINEERING, SEMESTER : 6TH
SECTION : EA

NAME OF THE FACULTY : (1) ER. SUBHASHREE PRADHAN (HOD, ELECT. ENGG.), (2) ER. RAMESH CHANDRA PRADHAN (LECT. IN ELECT. ENGG.)

SEMESTER FROM : 13.02.2023 to 23.05.2023

THEORY SUBJECT: ELECTRICAL INSTALLATION & ESTIMATING (TH-1)

CLASS ALLOTTED /WEEK : 04 PERIODS

| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|--|--|----------|--|
| 1 | UNIT-1 INDIAN ELECTRICITY RULES | 6 | FEBRUARY | |
| | 1.1 Definitions, Ampere, Apparatus, Accessible, Bare, cable, circuit, circuit breaker, conductor voltage (low, medium, high, EH), live, dead, cut-out, conduit, system, danger, Installation, earthing system, span, volt, switch gear, etc | 2 | | Dt - 14.02.2023, Dt - 15.02.2023 Dt - 16.02.2023, Dt - 17.02.2023 |
| | 1.2 General safety precautions, rule 29, 30, 31, 32, 33, 34, 35, 36, 40, 41, 43, 44, 45, 46. | 1 | | Dt - 20.02.2023 |
| | 1.3 General conditions relating to supply and use of energy : rule 47, 48, 49, 50, 51, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 70. | 2 | | Dt - 21.02.2023, Dt - 22.02.2023 |
| | 1.4 OH lines : Rule 74, 75, 76, 77, 78, 79, 80, 86, 87, 88, 89, 90, 91 | 1 | | Dt - 23.02.2023 |
| 2 | UNIT-2 ELECTRICAL INSTALLATIONS | 12 | | |
| | 2. 1 Electrical installations, domestics, industrial, Wiring System, Internal distribution of Electrical Energy. Methods of wiring, systems of wiring, wire and cable, conductor materials used in cables, insulating materials mechanical protection. Types of cables used in internal wiring, multi-stranded cables, voltage grinding of cables, general specifications of cables. | 4 | | Dt - 24.02.2023, Dt - 27.02.2023 Dt - 28.02.2023. |

| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|--|--|-------|--|
| | 2. 2 ACCESSORIES: Main switch and distribution boards, conduits, conduit accessories and fittings, lighting accessories and fittings, fuses, important definitions, determination of size of fuse – wire, fuse units. Earthing conductor, earthing, IS specifications regarding earthing of electrical installations, points to be earthed. Determination of size of earth wire and earth plate for domestic and industrial installations. Material required for GI pipe earthing. | 4 | MARCH | Dt. 01.03.2023, Dt. 02.03.2023 Dt. 03.03.2023, Dt. 06.03.2023 |
| | 2. 3 LIGHTING SCHEME: Aspects of good lighting services. Types of lighting schemes, design of lighting schemes, factory lighting, public lighting installations, street lighting, general rules for wiring, determination of number of points (light, fan, socket, outlets), determination of total load, determination of Number of subcircuits | 4 | | Dt. 07.03.2023, Dt. 09.03.2023 Dt. 10.03.2023, Dt. 13.03.2023 |
| | UNIT-3 INTERNAL WIRING | 12 | | |
| | 3. 1 Type of internal wiring, cleat wiring, CTS wiring, wooden casing capping, metal sheathed wiring, conduit wiring, their advantage and disadvantages comparison and applications. | 2 | | Dt. 14.03.2023, Dt. 15.03.2023 |
| 3 | 3. 2 Prepare one estimate of materials required for CTS wiring for small domestic installation of one room and one verandah within 25 m ² with given light, fan & plug points. | 2 | | Dt. 16.03.2023, Dt. 17.03.2023 |
| | 3. 3 Prepare one estimate of materials required for conduit wiring for small domestic installation of one room and one verandha within 25 m ² with given light, fan & plug points | 2 | | Dt. 20.03.2023, Dt. 21.03.2023 |

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|---------|--|--|-------|--|
| | 3. 4 Prepare one estimate of materials required for concealed wiring for domestic installation of two rooms and one latrine, bath, kitchen & verandah within 80m ² with given light, fan & plug points. | 3 | | Dt. 22. 03. 2023, Dt. 23. 03. 2023 Dt. 24. 03. 2023 |
| | 3. 5 Prepare one estimate of materials required for erection of conduct wiring to a small workshop installation about 30m ² and load within 10 KW. | 3 | | Dt. 27. 03. 2023, Dt. 28. 03. 2023 Dt. 29. 03. 2023, Dt. 31. 03. 2023 |
| | UNIT-4 OVER HEAD INSTALLATION | 12 | | |
| | 4.1. Main components of overhead lines, line supports, factors Governing Height of pole, conductor materials, determination of size of conductor for overhead transmission line, cross arms, pole brackets and clamps, guys and stays, conductors configurations, spacing and clearances, span lengths, overhead line insulators, types of insulators, lighting arresters, danger plates, anti-climbing devices, bird guards, beads of jumpers, jumpers, tee-offs, guarding of overhead lines. | 4 | April | Dt. 03. 04. 2023, Dt. 04. 04. 2023 Dt. 05. 04. 2023, Dt. 06. 04. 2023 |
| 4 | 4.2. Prepare an estimate of materials required for LT distribution line within load of 100 KW maximum and standard spans involving calculation of the size of conductor (from conductor chart), current carrying capacity and voltage regulation VI Sem Electrical Page 5 of 28 consideration using ACSR | 4 | | Dt. 10. 04. 2023, Dt. 11. 04. 2023 Dt. 12. 04. 2023, Dt. 13. 04. 2023 |
| | 4.3. Prepare an estimate of materials required for LT distribution line within load of 100 KW maximum and standard spans involving calculation of the size of conductor (from conductor chart), current carrying capacity and voltage regulation consideration using ACSR. | 4 | | Dt. 17. 04. 2023, Dt. 18. 04. 2023 Dt. 29. 04. 2023, Dt. 20. 04. 2023 |

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|---------|---|--|-------|--|
| | 4.4. Prepare an estimate of materials required for HT distribution line (11 KV) within 2 km and load of 2000 KVA maximum and standard spans involving calculation of the size of conductor (from conductor chart), current carrying capacity and voltage regulation of the size of conductor (from conductor chart), current carrying capacity and voltage regulation consider action using ACSR. | 4 | | Dt. 21.04.2023, Dt. 24.04.2023 Dt. 25.04.2023, Dt. 26.04.2023 |
| | UNIT 5 OVER HEAD SERVICE LINES | 12 | | |
| | 5. 1 Components of service lines, service line (cables and conductors), bearer wire, lacing rod, Ariel fuse, service support, energy box and meters etc. | 2 | | Dt. 27.04.2023, Dt. 28.04.2023 |
| | 5. 2 Prepare and estimate for providing single phase supply of load of 5 KW (light, fan, socket) to a single stored residential building. | 2 | MAY | Dt. 01.05.2023, Dt. 02.05.2023 |
| 5 | 5. 3 Prepare and estimate for providing single phase supply load of 3KW to each floor of a double stored building having separate energy meter | 2 | | Dt. 03.05.2023, Dt. 04.05.2023 |
| | 5. 4 Prepare one estimate of materials required for service connection to a factory building with load within 15 KW using insulated wire. | 3 | | Dt. 08.05.2023, Dt. 09.05.2023 Dt. 10.05.2023. |
| | 5. 5 Prepare one estimate of materials required for service connection to a factory building with load within 15 KW using bare conductor and insulated wire combined. | 3 | | Dt. 11.05.2023, Dt. 12.05.2023 |

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|---------|--|--|-------|--|
| | UNIT-6 ESTIMATING FOR DISTRIBUTION SUBSTATIONS | 6 | | |
| 6 | 6.1 Prepare one materials estimate for following types of transformer substations. 6.1.1 Pole mounted substation. 6.1.2 Plinth Mounted substation. | 6 | | Dt-15.05.2023, Dt.16.05.2023. Dt. 17.05.2023, Dt.18.05.2023 Dt. 22.05.2023, Dt. 23.05.2023 |

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THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH : ELECTRICAL ENGINEERING, SEMESTER : 6TH
SECTION : EA

NAME OF THE FACULTY : (1) ER. SUGYANI SAHOO,
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KUMAR BEHERA (LECT. IN ELECT. ENGG.)

SEMESTER FROM : 13.02.2023 to 23.05.2023

THEORY SUBJECT: SWITCH GEAR AND PROTECTIVE DEVICES (TH-2)

CLASS ALLOTTED /WEEK : 04 PERIODS

| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|--|--|-----------------|-------------------------------------|
| 1 | UNIT-1 INTRODUCTION TO SWITCHGEAR | 6 | FEBRUARY | |
| | 1.1 Essential Features of switchgear | 1 | | Dt. 14.02.2023 |
| | 1.2 Switchgear Equipment. | 1 | | Dt. 15.02.2023 |
| | 1.3 Bus-Bar Arrangement. | 1 | | Dt. 16.02.2023 |
| | 1.4 Switchgear Accommodation | 1 | | Dt. 17.02.2023 |
| | 1.5 Short Circuit. | 1 | | Dt. 20.02.2023 |
| | 1.6 Short circuit. | 1 | | Dt. 21.02.2023 |
| | 1.7 Faults in a power system. | 1 | | Dt. 22.02.2023, Dt. 23.02.2023 |
| 2 | UNIT-2 FAULT CALCULATION | 10 | | |
| | 2.1 Symmetrical faults on 3-phase system. | 2 | | Dt. 24.02.2023 |
| | 2.2 Limitation of fault current. | 1 | | Dt. 27.02.2023 |
| | 2.3 Percentage Reactance | 1 | | Dt. 28.02.2023 |
| | 2.4 Percentage Reactance and Base KVA. | 1 | MARCH | Dt. 01.03.2023 |
| | 2.5 Short – circuit KVA | 1 | | Dt. 02.03.2023 |
| | 2.6 Reactor control of short circuit currents | 1 | | Dt. 03.03.2023 |
| | 2.7 Location of reactors. | 1 | | Dt. 06.03.2023 |
| | 2.8 Steps for symmetrical Fault calculations | 1 | | Dt. 07.03.2023 |
| | 2.9 Solve numerical problems on symmetrical fault. | 1 | | Dt. 09.03.2023 |

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|---|---|--|----------------|-------------------------------------|
| 3 | UNIT-3 FUSES | 6 | | |
| | 3.1 Desirable characteristics of fuse element | 1 | | Dt. 10.03.2023 |
| | 3.2 Fuse Element materials. | 1 | | Dt. 13.03.2023 |
| | 3.3 Types of Fuses and important terms used for fuses | 1 | | Dt. 14.03.2023 |
| | 3.4 Low and High voltage fuses. | 1 | | Dt. 15.03.2023 |
| | 3.5 Current carrying capacity of fuse element. | 1 | | Dt. 16.03.2023 |
| | 3.6 Difference Between a Fuse and Circuit Breaker | 1 | | Dt. 20.03.2023 |
| 4 | UNIT-4 CIRCUIT BREAKERS | 10 | | |
| | 4.1 Definition and principle of Circuit Breaker | 1 | | Dt. 21.03.2023 |
| | 4.2 Arc phenomenon and principle of Arc Extinction. | 2 | | Dt. 22.03.2023, Dt. 23.03.2023 |
| | 4.3 Methods of Arc Extinction. | 1 | | Dt. 24.03.2023 |
| | 4.4 Definitions of Arc voltage, Re-striking voltage and Recovery voltage. | 2 | | Dt. 27.03.2023, Dt. 28.03.2023 |
| | 4.5 Classification of circuit Breakers. | 1 | | Dt. 29.03.2023 |
| | 4.6 Oil circuit Breaker and its classification. | 1 | | Dt. 31.03.2023 |
| | 4.7 Plain brake oil circuit breaker | 1 | APRIL | Dt. 03.04.2023 |
| | 4.8 Arc control oil circuit breaker. | 1 | | Dt. 04.04.2023 |
| | 4.9 Low oil circuit breaker. | 1 | | Dt. 05.04.2023 |
| 4.10 Maintenance of oil circuit breaker | 1 | | Dt. 06.04.2023 | |

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|---------|--|--|-------|-------------------------------------|
| | 4.11 Air-Blast circuit breaker and its classification. | 1 | | Dt. 10.04.2023 |
| | 4.12 Sulphur Hexa-fluoride (SF6) circuit breaker. | 1 | | Dt. 11.04.2023 |
| | 4.13 Vacuum circuit breakers. | 1 | | Dt. 12.04.2023 |
| | 4.14 Switchgear component | 1 | | Dt. 13.04.2023 |
| | 4.15 Problems of circuit interruption | 1 | | Dt. 14.04.2023 |
| | 4.16 Resistance switching. | 1 | | Dt. 15.04.2023 |
| | 4.17 Circuit Breaker Rating | 1 | | Dt. 19.04.2023 |
| | UNIT-5 PROTECTIVE RELAYS | 8 | | |
| | 5.1 Definition of Protective Relay. | 1 | | Dt. 20.04.2023 |
| | 5.2 Fundamental requirement of protective relay. | 1 | | Dt. 21.04.2023 |
| | 5.3 Basic Relay operation 5.3.1. Electromagnetic Attraction type 5.3.2. Induction type | 1 | | Dt. 24.04.2023 |
| | 5.4 Definition of following important terms | 1 | | Dt. 25.04.2023 |
| | 5.5 Definition of following important terms. 5.5.1. Pick-up current. 5.5.2. Current setting. 5.5.3. Plug setting Multiplier. 5.5.4. Time setting Multiplier. | 1 | | Dt. 26.04.2023 |
| | 5.6 Classification of functional relays | 1 | | Dt. 27.04.2023 |
| | 5.7 Induction type over current relay (Non-directional) | 1 | | Dt. 28.04.2023 |
| | 5.8 Induction type directional power relay. | 1 | MAY | Dt. 01.05.2023 |
| | 5.9 Induction type directional over current relay | 1 | | Dt. 02.05.2023 |
| | 5.10 Differential relay 5.10.1. Current differential relay 5.10.2. Voltage balance differential relay. | 1 | | Dt. 03.05.2023 |
| | 5.11 Types of protection | 1 | | Dt. 04.05.2023 |

| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|---|--|-------|-------------------------------------|
| 6 | UNIT-6 PROTECTION OF ELECTRICAL POWER EQUIPMENT AND LINES | 6 | | |
| | 6.1 Protection of alternator | 1 | | Dt. 08.05.2023 |
| | 6.2 Differential protection of alternators. | 1 | | Dt. 09.05.2023 |
| | 6.3 Balanced earth fault protection. | 1 | | Dt. 10.05.2023 |
| | 6.4 Protection systems for transformer | 1 | | Dt. 11.05.2023 |
| | 6.5 Buchholz relay. | 1 | | Dt. 12.05.2023 |
| | 6.6 Protection of Bus bar | 1 | | Dt. 12.05.2023 |
| | 6.7 Protection of Transmission line. | 1 | | Dt. 12.05.2023 |
| | 6.8 Different pilot wire protection (Merz-price voltage Balance system) | 1 | | Dt. 15.05.2023 |
| | 6.9 Explain protection of feeder by over current and earth fault relay | 1 | | Dt. 15.05.2023 |
| 7 | UNIT -7 PROTECTION AGAINST OVER VOLTAGE AND LIGHTING | 8 | | |
| | 7.1. Voltage surge and causes of over voltage. | 1 | | Dt. 16.05.2023 |
| | 7.2. Internal cause of over voltage. | 1 | | Dt. 16.05.2023 |
| | 7.3. External cause of over voltage (lighting) | 1 | | Dt. 16.05.2023 |
| | 7.4. Mechanism of lightning discharge. | 1 | | Dt. 17.05.2023 |
| | 7.5. Types of lightning strokes. | 1 | | Dt. 17.05.2023 |

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|---------|--|--|-------|-------------------------------------|
| | 7.6. Harmful effect of lightning. | 1 | | Dt. 17.05.2023 |
| | 7.7. Lightning arresters and Type of lightning Arresters. 7.7.1. Rod-gap lightning arrester. 7.7.2. Horn-gap arrester. 7.7.3. Valve type arrester. | 1 | | Dt. 18.05.2023 |
| | 7.8. Surge Absorber | 1 | | Dt. 18.05.2023 |
| | UNIT -8 STATIC RELAY | 6 | | |
| 8 | 8. 1 Advantage of static relay. | 2 | | Dt. 22.05.2023 |
| | 8. 2 Instantaneous over current relay. | 2 | | Dt. 22.05.2023 |
| | 8. 3 Principle of IDMT relay. | 2 | | Dt. 23.05.2023 |

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THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH : ELECTRICAL ENGINEERING, SEMESTER : 6TH
SECTION : EA

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SEMESTER FROM : 13.02.2023 to 23.05.2023

THEORY SUBJECT: CONTROL SYSTEM ENGINEERING (TH-3)

CLASS ALLOTTED /WEEK : 04 PERIODS

| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|--|--|----------|-------------------------------------|
| 1 | UNIT-1 FUNDAMENTAL OF CONTROL SYSTEM | 4 | FEBRUARY | |
| | 1.1. Classification of Control system | 1 | | Dt. 14.02.2023 |
| | 1.2. Open loop system & Closed loop system and its comparison | 1 | | Dt. 15.02.2023 |
| | 1.3. Effects of Feed back | 1 | | Dt. 16.02.2023 |
| | 1.4. Standard test Signals(Step, Ramp, Parabolic, Impulse Functions) | 2 | | Dt. 17.02.2023, Dt. 20.02.2023 |
| | 1.5. Servomechanism | 1 | | Dt. 21.02.2023 |
| 2 | UNIT-2 MATHEMATICAL MODEL OF A SYSTEM | 4 | | |
| | 2.1. Transfer Function & Impulse response, | 1 | | Dt. 22.02.2023, Dt. 23.02.2023 |
| | 2.2. Properties, Advantages & Disadvantages of Transfer Function | 1 | | Dt. 24.02.2023 |
| | 2.3. Poles & Zeroes of transfer Function | 1 | | Dt. 27.02.2023, Dt. 28.02.2023 |
| | 2.4. Simple problems of transfer function of network. | 2 | MARCH | Dt. 01.03.2023, Dt. 02.03.2023 |
| | 2.5. Mathematical modeling of Electrical Systems(R, L, C, Analogous systems) | 1 | | Dt. 03.03.2023, Dt. 06.03.2023 |

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|---------|--|--|-------|--|
| 3 | UNIT-3 CONTROL SYSTEM COMPONENTS | 4 | | |
| | 3.1. Components of Control System | 2 | | Dt. 07.03.2023, Dt. 09.03.2023 |
| | 3.2. Gyroscope, Synchros, Tachometer, DC servomotors, Ac Servomotors. | 2 | | Dt. 10.03.2023, Dt. 13.03.2023 |
| 4 | UNIT-4 BLOCK DIAGRAM ALGEBRA & SIGNAL FLOW GRAPHS | 8 | | |
| | 4.1. Definition: Basic Elements of Block Diagram | 1 | | Dt. 14.03.2023, Dt. 15.03.2023 |
| | 4.2. Canonical Form of Closed loop Systems | 1 | | Dt. 15.03.2023, Dt. 16.03.2023 |
| | 4.3. Rules for Block diagram reduction | 1 | | Dt. 17.03.2023, Dt. 20.03.2023 |
| | 4.4. Procedure for of Reduction of Block Diagram | 1 | | Dt. 21.03.2023, Dt. 22.03.2023 |
| | 4.5. Simple Problem for equivalent transfer function | 2 | | Dt. 24.03.2023, Dt. 27.03.2023 |
| | 4.6. Basic Definition in Signal Flow Graph & properties | 1 | | Dt. 28.03.2023, Dt. 29.03.2023 |
| | 4.7. Construction of Signal Flow graph from Block diagram | 1 | | Dt. 31.03.2023 |
| | 4.8. Mason's Gain formula | 1 | APRIL | Dt. 03.04.2023 |
| | 4.9. Simple problems in Signal flow graph for network | 1 | | Dt. 04.04.2023 |
| 5 | UNIT-5 TIME RESPONSE ANALYSIS | 10 | | |
| | 5.1 Time response of control system. | 5 | | Dt. 05.04.2023, Dt. 06.04.2023 |
| | 5.2 Standard Test signal. 5.2.1. Step signal, 5.2.2. Ramp Signal 5.2.3. Parabolic Signal 5.2.4. Impulse Signal | 3 | | Dt. 10.04.2023, Dt. 11.04.2023 Dt. 12.04.2023, Dt. 13.04.2023 |

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|---------|--|--|-------|--|
| | 5.3 Time Response of first order system with: 5.3.1 Unit step response, 5.3.2 Unit impulse response | 2 | | Dt. 17.04.2023, Dt. 18.04.2023 |
| | 5.4 Time response of second order system to the unit step input : 5.4.1 Time response specification, 5.4.2 Derivation of expression for rise time, peak time, peak overshoot, settling time and steady state error, 5.4.3 Steady state error and error constants, 5.5 Types of control system (Steady state errors in Type-0, Type-1, Type-2 system, 5.6 Effect of adding poles and zero of transfer function, 5.7 Response with P, PI, PD and PID Controller. | 8 | | Dt. 19.04.2023, Dt. 20.04.2023 Dt. 21.04.2023, Dt. 24.04.2023 Dt. 25.04.2023, Dt. 26.04.2023 Dt. 27.04.2023, Dt. 28.04.2023 |
| | ANALYSIS OF STABILITY BY ROOT LOCUS TECHNIQUE | 10 | MAY | |
| 6 | 6.1 Root locus concept | | | Dt. 01.05.2023 |
| | 6.2 Construction of root loci | | | Dt. 02.05.2023 |
| | 6.3 Rules for construction of the root locus | | | Dt. 03.05.2023 |
| | 6.4 Effect of adding poles and zeros to G(s) and H(s) | | | Dt. 04.05.2023 |
| | FREQUENCY RESPONSE ANALYSIS | 10 | | |
| 7 | 7.1 Correlation between time response and frequency response | | | Dt. 08.05.2023 |
| | 7.2 Polar plots | | | Dt. 09.05.2023 |
| | 7.3 Bode plots | | | Dt. 10.05.2023 |
| | 7.4 All pass and minimum phase system | | | Dt. 11.05.2023 |

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|---------|--|--|-------|-------------------------------------|
| | 7.5 Computation of Grain margin and phase margin | 1 | | Dt. 12.05.2023 |
| | 7.6 Log magnitude versus phase plot | 1 | | Dt. 12.05.2023 |
| | 7.7 Closed loop frequency response | 1 | | Dt. 15.05.2023 |
| | NYQUIST PLOT | 10 | | |
| 8 | 8.1 Principle of argument | 1 | | Dt. 16.05.2023 |
| | 8.2 Nyquist stability criterion | 1 | | Dt. 17.05.2023 |
| | 8.3 Niquist stability criterion applied to inverse polar plot | 1 | | Dt. 18.05.2023 |
| | 8.4 Effect of addition of poles and zeros to G(S), H(S) on the shape of Niquist plot | 1 | | Dt. 22.05.2023 |
| | 8.5 Assessment of relative stability | 1 | | Dt. 22.05.2023 |
| | 8.6 Constant M and N circle | 1 | | Dt. 23.05.2023 |
| | 8.7 Nicholas chart | 1 | | Dt. 23.05.2023 |



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THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH : ELECTRICAL ENGINEERING, SEMESTER : 6TH
SECTION : EA

NAME OF THE FACULTY : (1) ER. BIRENDRA BAI,
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SEMESTER FROM : 13.02.2023 to 23.05.2023

THEORY SUBJECT: RENEWABLE ENERGY SYSTEM (TH-4B)

CLASS ALLOTTED /WEEK : 04 PERIODS

| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|---|--|----------|--|
| 1 | UNIT-1 INTRODUCTION TO RENEWABLE ENERGY | 5 | FEBRUARY | |
| | 1.1. Environmental consequences of fossil fuel use | 1 | | Dt. 14.02.2023 |
| | 1.2. Importance of renewable sources of energy | 1 | | Dt. 15.02.2023 |
| | 1.3. Sustainable Design and development | 1 | | Dt. 16.02.2023 |
| | 1.4. Types of RE sources | 1 | | Dt. 17.02.2023 |
| | 1.5. Limitations of RE sources | 1 | | Dt. 20.02.2023 |
| | 1.6. Present Indian and international energy scenario of conventional and RE sources | 1 | | Dt. 21.02.2023 |
| 2 | UNIT-2 SOLAR ENERGY | 15 | | |
| | 2.1. Solar photovoltaic system-Operating principle | 2 | | Dt. 22.02.2023, Dt. 23.02.2023 |
| | 2.2. Photovoltaic cell concepts 2.2.1. Cell, module, array, Series and parallel connections. Maximum power point tracking (MPPT). | 3 | | Dt. 24.02.2023, Dt. 27.02.2023 Dt. 28.02.2023 |
| | 2.3. Classification of energy Sources | 2 | MARCH | Dt. 01.03.2023, Dt. 02.03.2023 |
| | 2.4. Extra-terrestrial and terrestrial Radiation | 3 | | Dt. 03.03.2023, Dt. 06.03.2023 |
| | 2.5. Azimuth angle, Zenith angle, Hour angle, Irradiance, Solar constant | 2 | | Dt. 07.03.2023, Dt. 09.03.2023 |

| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|--|--|-------|-------------------------------------|
| | 2.6. Solar collectors, Types and performance characteristics | 2 | | Dt. 10.03.2023, Dt. 13.03.2023 |
| | 2.7. Applications: Photovoltaic - battery charger, domestic lighting, street lighting, water pumping, solar cooker, Solar Pond | 1 | | Dt. 14.03.2023, Dt. 15.03.2023 |
| | UNIT-3 WIND ENERGY | 12 | | |
| | 3.1. Introduction to Wind energy | 2 | | Dt. 16.03.2023, Dt. 17.03.2023 |
| | 3.2. Wind energy conversion | 2 | | Dt. 20.03.2023, Dt. 21.03.2023 |
| | 3.3. Types of wind turbines | 1 | | Dt. 22.03.2023 |
| | 3.4. Aerodynamics of wind rotors | 1 | | Dt. 23.03.2023 |
| 3 | 3.5. Wind turbine control systems; conversion to electrical power | 1 | | Dt. 24.03.2023 |
| | 3.6. Induction and synchronous generators | 1 | | Dt. 27.03.2023 |
| | 3.7. Grid connected and self excited induction generator operation | 1 | | Dt. 28.03.2023 |
| | 3.8. Constant voltage and constant frequency generation with power electronic control | 1 | | Dt. 29.03.2023 |
| | 3.9. Single and double output systems. | 1 | | Dt. 31.03.2023 |
| | 3.10. Characteristics of wind power plant | 1 | APRIL | Dt. 03.04.2023 |
| 4 | UNIT-4 BIOMASS POWER | 12 | | |
| | 4.1. Energy from Biomass | 2 | | Dt. 04.04.2023 |
| | 4.2. Biomass as Renewable Energy Source | 1 | | Dt. 05.04.2023 |
| | 4.3. Types of Biomass Fuels - Solid, Liquid and Gas | 1 | | Dt. 06.04.2023 |

| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|---|--|-------|--|
| | 4.4. Combustion and fermentation | 2 | | Dt. 10.04.2023, Dt. 11.04.2023 |
| | 4.5. Anaerobic digestion | 1 | | Dt. 12.04.2023 |
| | 4.6. Types of biogas digester | 1 | | Dt. 13.04.2023 |
| | 4.7. Wood gassifier | 1 | | Dt. 17.04.2023, Dt. 18.04.2023 |
| | 4.8. Pyrolysis | 2 | | Dt. 19.04.2023, Dt. 20.04.2023 |
| | 4.9. Applications: Bio gas, Bio diesel | 1 | | Dt. 21.04.2023, Dt. 24.04.2023 |
| | UNIT-5 OTHER ENERGY SOURCES | 16 | | |
| | 5.1. Tidal Energy: Energy from the tides, Barrage and Non Barrage Tidal power systems | 3 | | Dt. 25.04.2023, Dt. 26.04.2023 Dt. 27.04.2023, Dt. 28.04.2023 |
| | 5.2. Ocean Thermal Energy Conversion (OTEC) | 2 | MAY | Dt. 01.05.2023, Dt. 02.05.2023 |
| | 5.3. Geothermal Energy – Classification | 3 | | Dt. 03.05.2023, Dt. 04.05.2023 Dt. 08.05.2023, Dt. 09.05.2023 |
| 5 | 5.4. Hybrid Energy Systems | 2 | | Dt. 10.05.2023, Dt. 11.05.2023 |
| | 5.5. Need for Hybrid Systems | 2 | | Dt. 12.05.2023, Dt. 15.05.2023 |
| | 5.6. Diesel-PV, Wind-PV, Microhydel-PV | 2 | | Dt. 16.05.2023, Dt. 17.05.2023 |
| | 5.7. Electric and hybrid electric vehicles | 3 | | Dt. 18.05.2023, Dt. 22.05.2023 Dt. 23.05.2023 |

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THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH : ELECTRICAL ENGINEERING, SEMESTER : 6TH
SECTION : EB

NAME OF THE FACULTY : (1) ER. SUBHASHREE PRADHAN (HOD, ELECT. ENGG.), (2) ER. RAMESH CHANDRA PRADHAN (LECT. IN ELECT. ENGG.)

SEMESTER FROM : 13.02.2023 to 23.05.2023

THEORY SUBJECT: ELECTRICAL INSTALLATION & ESTIMATING (TH-1)

CLASS ALLOTTED /WEEK : 04 PERIODS

| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|--|--|----------|---|
| 1 | UNIT-1 INDIAN ELECTRICITY RULES | 6 | FEBRUARY | |
| | 1.1 Definitions, Ampere, Apparatus, Accessible, Bare, cable, circuit, circuit breaker, conductor voltage (low, medium, high, EH), live, dead, cut-out, conduit, system, danger, Installation, earthing system, span, volt, switch gear, etc | 2 | | Dt. 14.02.2023 Dt. 15.02.2023 |
| | 1.2 General safety precautions, rule 29, 30, 31, 32, 33, 34, 35, 36, 40, 41, 43, 44, 45, 46. | 1 | | Dt. 16.02.2023 |
| | 1.3 General conditions relating to supply and use of energy : rule 47, 48, 49, 50, 51, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 70. | 2 | | Dt. 17.02.2023 Dt. 20.02.2023 |
| | 1.4 OH lines : Rule 74, 75, 76, 77, 78, 79, 80, 86, 87, 88, 89, 90, 91 | 1 | | Dt. 21.02.2023, Dt. 22.02.2023 |
| 2 | UNIT-2 ELECTRICAL INSTALLATIONS | 12 | | |
| | 2. 1 Electrical installations, domestics, industrial, Wiring System, Internal distribution of Electrical Energy. Methods of wiring, systems of wiring, wire and cable, conductor materials used in cables, insulating materials mechanical protection. Types of cables used in internal wiring, multi-stranded cables, voltage grinding of cables, general specifications of cables. | 4 | | Dt. 23.02.2023, Dt. 24.02.2023 Dt. 25.02.2023, Dt. 27.02.2023 Dt. 28.02.2023. |

| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|--|--|-------|--|
| | 2. 2 ACCESSORIES: Main switch and distribution boards, conduits, conduit accessories and fittings, lighting accessories and fittings, fuses, important definitions, determination of size of fuse – wire, fuse units. Earthing conductor, earthing, IS specifications regarding earthing of electrical installations, points to be earthed. Determination of size of earth wire and earth plate for domestic and industrial installations. Material required for GI pipe earthing. | 4 | MARCH | Dt. 01. 03. 2023 Dt. 02. 03. 2023 Dt. 03. 03. 2023 Dt. 06. 03. 2023 |
| | 2. 3 LIGHTING SCHEME: Aspects of good lighting services. Types of lighting schemes, design of lighting schemes, factory lighting, public lighting installations, street lighting, general rules for wiring, determination of number of points (light, fan, socket, outlets), determination of total load, determination of Number of subcircuits | 4 | | Dt. 07. 03. 2023 Dt. 09. 03. 2023 Dt. 10. 03. 2023 Dt. 13. 03. 2023 |
| | UNIT-3 INTERNAL WIRING | 12 | | |
| | 3. 1 Type of internal wiring, cleat wiring, CTS wiring, wooden casing capping, metal sheathed wiring, conduit wiring, their advantage and disadvantages comparison and applications. | 2 | | Dt. 14. 03. 2023 Dt. 15. 03. 2023 |
| 3 | 3. 2 Prepare one estimate of materials required for CTS wiring for small domestic installation of one room and one verandah within 25 m ² with given light, fan & plug points. | 2 | | Dt. 16. 03. 2023 Dt. 17. 03. 2023 |
| | 3. 3 Prepare one estimate of materials required for conduit wiring for small domestic installation of one room and one verandha within 25 m ² with given light, fan & plug points | 2 | | Dt. 20. 03. 2023 Dt. 21. 03. 2023 |

| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|--|--|-------|--|
| | 3. 4 Prepare one estimate of materials required for concealed wiring for domestic installation of two rooms and one latrine, bath, kitchen & verandah within 80m ² with given light, fan & plug points. | 3 | | Dt. 22.03.2023, Dt. 23.03.2023 Dt. 24.03.2023 |
| | 3. 5 Prepare one estimate of materials required for erection of conduct wiring to a small workshop installation about 30m ² and load within 10 KW. | 3 | | Dt. 27.03.2023, Dt. 28.03.2023 Dt. 29.03.2023, Dt. 31.03.2023 |
| | UNIT-4 OVER HEAD INSTALLATION | 12 | APRIL | |
| | 4.1. Main components of overhead lines, line supports, factors Governing Height of pole, conductor materials, determination of size of conductor for overhead transmission line, cross arms, pole brackets and clamps, guys and stays, conductors configurations, spacing and clearances, span lengths, overhead line insulators, types of insulators, lighting arresters, danger plates, anti-climbing devices, bird guards, beads of jumpers, jumpers, tee-offs, guarding of overhead lines. | 4 | | Dt. 03.04.2023 Dt. 04.04.2023 Dt. 05.04.2023 Dt. 06.04.2023 |
| 4 | 4.2. Prepare an estimate of materials required for LT distribution line within load of 100 KW maximum and standard spans involving calculation of the size of conductor (from conductor chart), current carrying capacity and voltage regulation VI Sem Electrical Page 5 of 28 consideration using ACSR | 4 | | Dt. 10.04.2023 Dt. 11.04.2023 Dt. 12.04.2023 Dt. 13.04.2023 |
| | 4.3. Prepare an estimate of materials required for LT distribution line within load of 100 KW maximum and standard spans involving calculation of the size of conductor (from conductor chart), current carrying capacity and voltage regulation consideration using ACSR. | 4 | | Dt. 17.04.2023 Dt. 18.04.2023 Dt. 19.04.2023 Dt. 20.04.2023 |

| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|---|--|-------|--|
| | 4.4. Prepare an estimate of materials required for HT distribution line (11 KV) within 2 km and load of 2000 KVA maximum and standard spans involving calculation of the size of conductor (from conductor chart), current carrying capacity and voltage regulation of the size of conductor (from conductor chart), current carrying capacity and voltage regulation consider action using ACSR. | 4 | | Dt. 24.04.2023 Dt. 25.04.2023 Dt. 26.04.2023 Dt. 27.04.2023 Dt. 28.04.2023 |
| | UNIT 5 OVER HEAD SERVICE LINES | 12 | MAY | |
| | 5. 1 Components of service lines, service line (cables and conductors), bearer wire, lacing rod. Ariel fuse, service support, energy box and meters etc. | 2 | | Dt. 01.05.2023 Dt. 02.05.2023 |
| | 5. 2 Prepare and estimate for providing single phase supply of load of 5 KW (light, fan, socket) to a single stored residential building. | 2 | | Dt. 03.05.2023 Dt. 04.05.2023 |
| 5 | 5. 3 Prepare and estimate for providing single phase supply load of 3KW to each floor of a double stored building having separate energy meter | 2 | | Dt. 08.05.2023 Dt. 09.05.2023 |
| | 5. 4 Prepare one estimate of materials required for service connection to a factory building with load within 15 KW using insulated wire. | 3 | | Dt. 10.05.2023, Dt. 11.05.2023 Dt. 12.05.2023 |
| | 5. 5 Prepare one estimate of materials required for service connection to a factory building with load within 15 KW using bare conductor and insulated wire combined. | 3 | | Dt. 15.05.2023, Dt. 16.05.2023 Dt. 17.05.2023. |

| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|---|--|-------|--|
| | UNIT-6 ESTIMATING FOR DISTRIBUTION SUBSTATIONS | 6 | | |
| 6 | 6. 1 Prepare one materials estimate for following types of transformer substations. 6.1.1 Pole mounted substation. 6.1.2 Plinth Mounted substation. | 6 | | Dt. 18.05.2023 Dt. 22.05.2023 Dt. 23.05.2023 |

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THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH : ELECTRICAL ENGINEERING, SEMESTER : 6TH
SECTION : EB

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SEMESTER FROM : 13.02.2023 to 23.05.2023

THEORY SUBJECT: SWITCH GEAR AND PROTECTIVE DEVICES (TH-2)

CLASS ALLOTTED /WEEK : 04 PERIODS

| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|--|--|----------|-------------------------------------|
| 1 | UNIT-1 INTRODUCTION TO SWITCHGEAR | 6 | FEBRUARY | |
| | 1.1 Essential Features of switchgear | 1 | | Dt. 14.02.2023 |
| | 1.2 Switchgear Equipment. | 1 | | Dt. 15.02.2023 |
| | 1.3 Bus-Bar Arrangement. | 1 | | Dt. 16.02.2023 |
| | 1.4 Switchgear Accommodation | 1 | | Dt. 17.02.2023 |
| | 1.5 Short Circuit. | 1 | | Dt. 20.02.2023 |
| | 1.6 Short circuit. | 1 | | Dt. 21.02.2023 |
| | 1.7 Faults in a power system. | 1 | | Dt. 22.02.2023 |
| 2 | UNIT-2 FAULT CALCULATION | 10 | | |
| | 2.1 Symmetrical faults on 3-phase system. | 2 | | Dt. 23.02.2023 |
| | 2.2 Limitation of fault current. | 1 | | Dt. 24.02.2023 |
| | 2.3 Percentage Reactance | 1 | | Dt. 27.02.2023 |
| | 2.4 Percentage Reactance and Base KVA. | 1 | | Dt. 28.02.2023 |
| | 2.5 Short – circuit KVA | 1 | MARCH | Dt. 01.03.2023 |
| | 2.6 Reactor control of short circuit currents | 1 | | Dt. 02.03.2023 |
| | 2.7 Location of reactors. | 1 | | Dt. 03.03.2023 |
| | 2.8 Steps for symmetrical Fault calculations | 1 | | Dt. 06.03.2023 |
| | 2.9 Solve numerical problems on symmetrical fault. | 1 | | Dt. 07.03.2023 |

| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|---|--|-------|-------------------------------------|
| 3 | UNIT-3 FUSES | 6 | | |
| | 3.1 Desirable characteristics of fuse element | 1 | | Dt. 09.03.2023 |
| | 3.2 Fuse Element materials. | 1 | | Dt. 10.03.2023 |
| | 3.3 Types of Fuses and important terms used for fuses | 1 | | Dt. 13.03.2023 |
| | 3.4 Low and High voltage fuses. | 1 | | Dt. 14.03.2023 |
| | 3.5 Current carrying capacity of fuse element. | 1 | | Dt. 15.03.2023 |
| | 3.6 Difference Between a Fuse and Circuit Breaker | 1 | | Dt. 16.03.2023 |
| 4 | UNIT-4 CIRCUIT BREAKERS | 10 | | |
| | 4.1 Definition and principle of Circuit Breaker | 1 | | Dt. 17.03.2023 |
| | 4.2 Arc phenomenon and principle of Arc Extinction. | 1 | | Dt. 20.03.2023 |
| | 4.3 Methods of Arc Extinction. | 1 | | Dt. 21.03.2023 |
| | 4.4 Definitions of Arc voltage, Re-striking voltage and Recovery voltage. | 1 | | Dt. 22.03.2023 |
| | 4.5 Classification of circuit Breakers. | 1 | | Dt. 23.03.2023 |
| | 4.6 Oil circuit Breaker and its classification. | 2 | | Dt. 24.03.2023 |
| | 4.7 Plain brake oil circuit breaker | 1 | | Dt. 27.03.2023 |
| | 4.8 Arc control oil circuit breaker. | 1 | | Dt. 28.03.2023 |
| | 4.9 Low oil circuit breaker. | 1 | | Dt. 29.03.2023 |
| | 4.10 Maintenance of oil circuit breaker | | | Dt. 31.03.2023 |

| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|--------------------------|--|--|----------------|-------------------------------------|
| | 4.11 Air-Blast circuit breaker and its classification. | 1 | APRIL | Dt- 03.04.2023 |
| | 4.12 Sulphur Hexa-fluoride (SF6) circuit breaker. | 1 | | Dt- 04.04.2023 |
| | 4.13 Vacuum circuit breakers. | 1 | | Dt- 05.04.2023 |
| | 4.14 Switchgear component | 1 | | Dt- 06.04.2023 |
| | 4.15 Problems of circuit interruption | 1 | | Dt- 10.04.2023 |
| | 4.16 Resistance switching. | 1 | | Dt- 11.04.2023 |
| | 4.17 Circuit Breaker Rating | 1 | | Dt- 12.04.2023 |
| | UNIT-5 PROTECTIVE RELAYS | 8 | | |
| 5 | 5.1 Definition of Protective Relay. | 1 | | Dt- 13.04.2023 |
| | 5.2 Fundamental requirement of protective relay. | 1 | | Dt- 14.04.2023 |
| | 5.3 Basic Relay operation 5.3.1. Electromagnetic Attraction type 5.3.2. Induction type | 1 | | Dt- 18.04.2023 |
| | 5.4 Definition of following important terms | 1 | | Dt- 19.04.2023 |
| | 5.5 Definition of following important terms. 5.5.1. Pick-up current. 5.5.2. Current setting. 5.5.3. Plug setting Multiplier. 5.5.4. Time setting Multiplier. | 1 | | Dt- 20.04.2023 |
| | 5.6 Classification of functional relays | 1 | | Dt- 21.04.2023 |
| | 5.7 Induction type over current relay (Non-directional) | 1 | | Dt- 24.04.2023 |
| | 5.8 Induction type directional power relay. | 1 | | Dt- 25.04.2023 |
| | 5.9 Induction type directional over current relay | 1 | | Dt- 26.04.2023 |
| | 5.10 Differential relay 5.10.1. Current differential relay 5.10.2. Voltage balance differential relay. | 1 | | Dt- 27.04.2023 |
| 5.11 Types of protection | 1 | | Dt- 28.04.2023 | |

| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|---|--|-------|-------------------------------------|
| 6 | UNIT-6 PROTECTION OF ELECTRICAL POWER EQUIPMENT AND LINES | 6 | MAY | |
| | 6.1 Protection of alternator | 1 | | Dt. 01.05.2023 |
| | 6.2 Differential protection of alternators. | 1 | | Dt. 02.05.2023 |
| | 6.3 Balanced earth fault protection. | 1 | | Dt. 03.05.2023 |
| | 6.4 Protection systems for transformer | 1 | | Dt. 04.05.2023 |
| | 6.5 Buchholz relay. | 1 | | Dt. 08.05.2023 |
| | 6.6 Protection of Bus bar | 1 | | Dt. 09.05.2023 |
| | 6.7 Protection of Transmission line. | 1 | | Dt. 10.05.2023 |
| | 6.8 Different pilot wire protection (Merz-price voltage Balance system) | 1 | | Dt. 11.05.2023 |
| | 6.9 Explain protection of feeder by over current and earth fault relay | 1 | | Dt. 12.05.2023 |
| 7 | UNIT -7 PROTECTION AGAINST OVER VOLTAGE AND LIGHTING | 8 | | |
| | 7.1. Voltage surge and causes of over voltage. | 1 | | Dt. 15.05.2023 |
| | 7.2. Internal cause of over voltage. | 1 | | Dt. 16.05.2023 |
| | 7.3. External cause of over voltage (lighting) | 1 | | Dt. 17.05.2023 |
| | 7.4. Mechanism of lightning discharge. | 1 | | Dt. 17.05.2023 |
| | 7.5. Types of lightning strokes. | 1 | | Dt. 18.05.2023 |

| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|--|--|-------|-------------------------------------|
| | 7.6. Harmful effect of lightning. | 1 | | Dt. 18.05.2023 |
| | 7.7. Lightning arresters and Type of lightning Arresters. 7.7.1. Rod-gap lightning arrester. 7.7.2. Horn-gap arrester. 7.7.3. Valve type arrester. | 1 | | Dt. 22.05.2023 |
| | 7.8. Surge Absorber | 1 | | Dt. 22.05.2023 |
| | UNIT -8 STATIC RELAY | 6 | | |
| 8 | 8. 1 Advantage of static relay. | 2 | | Dt. 23.05.2023 |
| | 8. 2 Instantaneous over current relay. | 2 | | Dt. 23.05.2023 |
| | 8. 3 Principle of IDMT relay. | 2 | | Dt. 23.05.2023 |

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THEORY LESSON PLAN FOR THE SESSION 2022 -23

BRANCH : ELECTRICAL ENGINEERING, SEMESTER : 6TH
SECTION : EB

NAME OF THE FACULTY : (1) ER. SASWATI SANGHAMITRA PRADHAN,
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SEMESTER FROM : 13.02.2023 to 23.05.2023

THEORY SUBJECT: CONTROL SYSTEM ENGINEERING (TH-3)

CLASS ALLOTTED /WEEK : 04 PERIODS

| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|--|--|----------|-------------------------------------|
| 1 | UNIT-1 FUNDAMENTAL OF CONTROL SYSTEM | 4 | FEBRUARY | 1 |
| | 1.1. Classification of Control system | 1 | | Dt. 14. 02. 2023 |
| | 1.2. Open loop system & Closed loop system and its comparison | 1 | | Dt. 15. 02. 2023 |
| | 1.3. Effects of Feed back | 1 | | Dt. 16. 02. 2023 |
| | 1.4. Standard test Signals(Step, Ramp, Parabolic, Impulse Functions) | 1 | | Dt. 17. 02. 2023 |
| | 1.5. Servomechanism | 1 | | Dt. 20. 02. 2023 |
| 2 | UNIT-2 MATHEMATICAL MODEL OF A SYSTEM | 4 | | . |
| | 2.1. Transfer Function & Impulse response, | 1 | | Dt. 21. 02. 2023 |
| | 2.2. Properties, Advantages & Disadvantages of Transfer Function | 1 | | Dt. 22. 02. 2023 |
| | 2.3. Poles & Zeroes of transfer Function | 1 | | Dt. 23. 02. 2023 |
| | 2.4. Simple problems of transfer function of network. | 1 | | Dt. 24. 02. 2023 |
| | 2.5. Mathematical modeling of Electrical Systems(R, L, C, Analogous systems) | 1 | | Dt. 27. 02. 2023 |


| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|--|--|-------|--|
| 3 | UNIT-3 CONTROL SYSTEM COMPONENTS | 4 | MARCH | |
| | 3.1. Components of Control System | 2 | | Dt. 01.03.2023, Dt. 02.03.2023 |
| | 3.2. Gyroscope, Synchros, Tachometer, DC servomotors, Ac Servomotors. | 2 | | Dt. 03.03.2023, Dt. 06.03.2023 |
| 4 | UNIT-4 BLOCK DIAGRAM ALGEBRA & SIGNAL FLOW GRAPHS | 8 | | |
| | 4.1. Definition: Basic Elements of Block Diagram | 1 | | Dt. 07.03.2023 |
| | 4.2. Canonical Form of Closed loop Systems | 1 | | Dt. 09.03.2023 |
| | 4.3. Rules for Block diagram reduction | 1 | | Dt. 10.03.2023 |
| | 4.4. Procedure for of Reduction of Block Diagram | 1 | | Dt. 13.03.2023 |
| | 4.5. Simple Problem for equivalent transfer function | 1 | | Dt. 14.03.2023 |
| | 4.6. Basic Definition in Signal Flow Graph & properties | 1 | | Dt. 15.03.2023 |
| | 4.7. Construction of Signal Flow graph from Block diagram | 1 | | Dt. 16.03.2023 |
| | 4.8. Mason's Gain formula | 1 | | Dt. 17.03.2023 |
| | 4.9. Simple problems in Signal flow graph for network | 1 | | Dt. 20.03.2023 |
| 5 | UNIT-5 TIME RESPONSE ANALYSIS | 10 | | |
| | 5.1 Time response of control system. | 5 | | Dt. 21.03.2023, Dt. 22.03.2023, Dt. 23.03.2023 |
| | 5.2 Standard Test signal. 5.2.1. Step signal, 5.2.2. Ramp Signal 5.2.3. Parabolic Signal 5.2.4. Impulse Signal | 3 | | Dt. 24.03.2023, Dt. 27.03.2023 Dt. 28.03.2023 |

| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|--|--|-------|---|
| | 5.3 Time Response of first order system with: 5.3.1 Unit step response, 5.3.2 Unit impulse response | 2 | | Dt-29.03.2023 Dt-31.03.2023 |
| | 5.4 Time response of second order system to the unit step input : 5.4.1 Time response specification, 5.4.2 Derivation of expression for rise time, peak time, peak overshoot, settling time and steady state error, 5.4.3 Steady state error and error constants, 5.5 Types of control system (Steady state errors in Type-0, Type-1, Type-2 system, 5.6 Effect of adding poles and zero of transfer function, 5.7 Response with P, PI, PD and PID Controller. | 5 | APRIL | Dt-03.04.2023 Dt-04.04.2023 Dt-05.04.2023 Dt-06.04.2023 Dt-10.04.2023 |
| | ANALYSIS OF STABILITY BY ROOT LOCUS TECHNIQUE | 10 | | |
| 6 | 6.1 Root locus concept | 1 | | Dt-11.04.2023 |
| | 6.2 Construction of root loci | 2 | | Dt-12.04.2023, Dt-13.04.2023 |
| | 6.3 Rules for construction of the root locus | 2 | | Dt-17.04.2023, Dt-18.04.2023 |
| | 6.4 Effect of adding poles and zeros to G(s) and H(s) | 2 | | Dt-19.04.2023, Dt-20.04.2023 |
| | FREQUENCY RESPONSE ANALYSIS | 10 | | |
| 7 | 7.1 Correlation between time response and frequency response | 2 | | Dt-21.04.2023, Dt-24.04.2023 |
| | 7.2 Polar plots | 2 | | Dt-25.04.2023, Dt-26.04.2023 |
| | 7.3 Bode plots | 2 | | Dt-27.04.2023, Dt-28.04.2023 |
| | 7.4 All pass and minimum phase system | 2 | MAY | Dt-01.05.2023, Dt-02.05.2023 |

| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|--|--|-------|-------------------------------------|
| | 7.5 Computation of Grain margin and phase margin | 2 | | Dt. 03.05.2023, Dt. 04.05.2023 |
| | 7.6 Log magnitude versus phase plot | 2 | | Dt. 04.05.2023, Dt. 08.05.2023 |
| | 7.7 Closed loop frequency response | 3 | | Dt. 09.05.2023, Dt. 10.05.2023 |
| | NYQUIST PLOT | 10 | | |
| 8 | 8.1 Principle of argument | 2 | | Dt. 11.05.2023, Dt. 12.05.2023 |
| | 8.2 Nyquist stability criterion | 2 | | Dt. 15.05.2023, Dt. 16.05.2023 |
| | 8.3 Niquist stability criterion applied to inverse polar plot | 1 | | Dt. 17.05.2023 |
| | 8.4 Effect of addition of poles and zeros to G(S), H(S) on the shape of Niquist plot | 1 | | Dt. 18.05.2023 |
| | 8.5 Assessment of relative stability | 1 | | Dt. 18.05.2023 |
| | 8.6 Constant M and N circle | 1 | | Dt. 22.05.2023 |
| | 8.7 Nicholas chart | 1 | | Dt. 23.05.2023 |


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THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH : ELECTRICAL ENGINEERING, SEMESTER : 6TH
SECTION : EB

NAME OF THE FACULTY : (1) ER. BIRENDRA BAI,
(2) ER. SUSHIL KUMAR MAJHI, (LECT. IN ELECT. ENGG.)

SEMESTER FROM : 13.02.2023 to 23.05.2023

THEORY SUBJECT: RENEWABLE ENERGY SYSTEM (TH-4B)

CLASS ALLOTTED /WEEK : 04 PERIODS

| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|---|--|----------|--|
| 1 | UNIT-1 INTRODUCTION TO RENEWABLE ENERGY | 5 | FEBRUARY | |
| | 1.1. Environmental consequences of fossil fuel use | 1 | | Dt. 14.02.2023 |
| | 1.2. Importance of renewable sources of energy | 1 | | Dt. 15.02.2023 |
| | 1.3. Sustainable Design and development | 1 | | Dt. 16.02.2023 |
| | 1.4. Types of RE sources | 1 | | Dt. 17.02.2023 |
| | 1.5. Limitations of RE sources | 1 | | Dt. 20.02.2023 |
| | 1.6. Present Indian and international energy scenario of conventional and RE sources | 1 | | Dt. 21.02.2023 |
| 2 | UNIT-2 SOLAR ENERGY | 15 | | |
| | 2.1. Solar photovoltaic system-Operating principle | 2 | | Dt. 22.02.2023, Dt. 23.02.2023 |
| | 2.2. Photovoltaic cell concepts 2.2.1. Cell, module, array, Series and parallel connections. Maximum power point tracking (MPPT). | 3 | | Dt. 24.02.2023, Dt. 27.02.2023 Dt. 28.02.2023 |
| | 2.3. Classification of energy Sources | 2 | | Dt. 01.03.2023, Dt. 02.03.2023 |
| | 2.4. Extra-terrestrial and terrestrial Radiation | 3 | | Dt. 03.03.2023, Dt. 06.03.2023 |
| | 2.5. Azimuth angle, Zenith angle, Hour angle, Irradiance, Solar constant | 2 | | Dt. 07.03.2023, Dt. 09.03.2023 |

| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|--|--|-------|-------------------------------------|
| | 2.6. Solar collectors, Types and performance characteristics | 2 | | Dt. 10.03.2023, Dt. 19.03.2023 |
| | 2.7. Applications: Photovoltaic - battery charger, domestic lighting, street lighting, water pumping, solar cooker, Solar Pond | 1 | | Dt. 14.03.2023, Dt. 15.03.2023 |
| | UNIT-3 WIND ENERGY | 12 | | |
| | 3.1. Introduction to Wind energy | 2 | | Dt. 16.03.2023, Dt. 17.03.2023 |
| | 3.2. Wind energy conversion | 2 | | Dt. 20.03.2023, Dt. 21.03.2023 |
| | 3.3. Types of wind turbines | 1 | | Dt. 22.03.2023 |
| | 3.4. Aerodynamics of wind rotors | 1 | | Dt. 23.03.2023 |
| 3 | 3.5. Wind turbine control systems; conversion to electrical power | 1 | | Dt. 24.03.2023 |
| | 3.6. Induction and synchronous generators | 1 | | Dt. 27.03.2023 |
| | 3.7. Grid connected and self excited induction generator operation | 1 | | Dt. 28.03.2023 |
| | 3.8. Constant voltage and constant frequency generation with power electronic control | 1 | | Dt. 29.03.2023 |
| | 3.9. Single and double output systems. | 1 | | Dt. 31.03.2023 |
| | 3.10. Characteristics of wind power plant | 1 | APRIL | Dt. 03.04.2023 |
| 4 | UNIT-4 BIOMASS POWER | 12 | | |
| | 4.1. Energy from Biomass | 2 | | Dt. 04.04.2023 |
| | 4.2. Biomass as Renewable Energy Source | 1 | | Dt. 05.04.2023 |
| | 4.3. Types of Biomass Fuels - Solid, Liquid and Gas | 1 | | Dt. 06.04.2023 |

| Sl. No. | CHAPTERS TO BE COVERED | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|---|--|-------|--|
| | 4.4. Combustion and fermentation | 2 | | Dt. 10.04.2023, Dt. 11.04.2023 |
| | 4.5. Anaerobic digestion | 1 | | Dt. 12.04.2023 |
| | 4.6. Types of biogas digester | 1 | | Dt. 13.04.2023 |
| | 4.7. Wood gassifier | 1 | | Dt. 17.04.2023, Dt. 18.04.2023 |
| | 4.8. Pyrolysis | 2 | | Dt. 19.04.2023, Dt. 20.04.2023 |
| | 4.9. Applications: Bio gas, Bio diesel | 1 | | Dt. 21.04.2023, Dt. 24.04.2023 |
| | UNIT-5 OTHER ENERGY SOURCES | 16 | | |
| | 5.1. Tidal Energy: Energy from the tides, Barrage and Non Barrage Tidal power systems | 3 | | Dt. 25.04.2023, Dt. 26.04.2023 Dt. 27.04.2023, Dt. 28.04.2023 |
| | 5.2. Ocean Thermal Energy Conversion (OTEC) | 2 | MAY | Dt. 01.05.2023, Dt. 02.05.2023 |
| | 5.3. Geothermal Energy – Classification | 3 | | Dt. 03.05.2023, Dt. 04.05.2023 Dt. 08.05.2023, Dt. 09.05.2023 |
| 5 | 5.4. Hybrid Energy Systems | 2 | | Dt. 10.05.2023, Dt. 11.05.2023 |
| | 5.5. Need for Hybrid Systems | 2 | | Dt. 12.05.2023, Dt. 15.05.2023 |
| | 5.6. Diesel-PV, Wind-PV, Microhydel-PV | 2 | | Dt. 16.05.2023, Dt. 17.05.2023 |
| | 5.7. Electric and hybrid electric vehicles | 3 | | Dt. 18.05.2023, Dt. 22.05.2023 Dt. 23.05.2023 |

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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:-ELECTRICAL ENGG.

SEMESTER: 6TH

SECTION : EA1

NAME OF THE FACULTY : (1) ER. SUBHASHREE PRADHAN (H.O.D., ELECT. ENGG.), (2) ER. SUSHIL KUMAR MAJHI, (LECT. IN ELECT. ENGG.), (3) ER. LILY NAYAK, (4) ER. KRUTIBASA BEHERA (T.A., ELECT. ENGG.)

SEMESTER FROM DT. 13.02.2023 TO 23.05.2023

PRACTICAL SUBJECT: ELECTRICAL WORKSHOP PRACTICE (PR-1)

CLASS ALLOTTED /WEEK :06 PERIODS

| Sl. No. | NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED | MONTH | AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS | ACTUAL PROGRESS OF THE COURSES MADE DATES |
|---------|---|----------|--|--|
| 1 | Identification of single core (SC), twin core (TC), three cores (3c), four cores (4c); copper and aluminum PVC, VIR & Weather proof (WP) wire and prepare Britannia T-joint and Married joint. | FEBRUARY | 3 | Dt. 16.02.2023 Dt. 20.02.2023 |
| 2 | Cutting copper and aluminum cable and crimping lug to them from 2.5mm ² to 6 mm ² cross section. | | 2 | Dt. 23.02.2023 Dt. 27.02.2023 |
| 3 | Connection and testing of fluorescent tube light, high pressure M.V. lamp, sodium vapor lamp, M.H lamp, CFL and latest model lamps – measure inductance, Lux/ lumens (intensity of illumination) in each case-prepare lux table . | MARCH | 3 | Dt. 02.03.2023 Dt. 06.03.2023 Dt. 09.03.2023 |
| 4 | Study battery charger and make charging of lead acid battery (record charging voltage, current and specific gravity). | | 2 | Dt. 13.03.2023 Dt. 16.03.2023 |
| 5 | Erection of residential building wiring by CTS and conduit wiring system using main two points and test installation by test lamp method and a meggar. | | 3 | Dt. 20.03.2023 Dt. 23.03.2023 Dt. 27.03.2023 |
| 6 | Fault finding & repairing of Ceiling Fan – prepare an inventory list of parts. | APRIL | 2 | Dt. 03.04.2023 Dt. 06.04.2023 |

| Sl. No. | NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED | MONTH | AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS | ACTUAL PROGRESS OF THE COURSES MADE DATES |
|---------|--|-------|--|--|
| 7 | Find out fault of D.C. generator, repair and test it to run. | | 3 | Dt. 10.04.2023 Dt. 13.04.2023 Dt. 17.04.2023 |
| 8 | Find out fault of D.C. motor starters and A.C motor starter – prepare an inventory list of parts used in different starters. | | 3 | Dt. 20.04.2023 Dt. 21.04.2023 Dt. 27.04.2023 |
| 9 | Dismantle, over haul and assemble a single phase induction motor. Test and run it. – prepare an inventory list. | MAY | 2 | Dt. 01.05.2023 Dt. 04.05.2023 |
| 10 | Dismantle over haul and assemble a three phase squirrel cage and phase wound motor. Test and run them. | | 3 | Dt. 08.05.2023 Dt. 11.05.2023 Dt. 15.05.2023 |
| 11 | Overhaul a single phase and 3-phase variac. | | 2 | Dt. 18.05.2023 Dt. 22.05.2023 |

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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:-ELECTRICAL ENGG.

SEMESTER: 6TH

SECTION : EA1

NAME OF THE FACULTY : (1) ER. RAMESH CHANDRA PRADHAN, (2) ER. SASWATI SANGHAMITRA PRADHAN, (3) ER. SUGYANI SAHOO, (4) ER. PRADYUMNA GARNAIK (LECT. IN ELECT. ENGG.), (5) ER. LILY NAYAK (T.A., ELECT. ENGG.)

SEMESTER FROM DT. 13.02.2023 TO 23.05.2023

PRACTICAL SUBJECT: PROJECT PHASE-2 (PR-2)

CLASS ALLOTTED /WEEK : 08 PERIODS

| Sl. No. | NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED | MONTH | AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS | ACTUAL PROGRESS OF THE COURSES MADE DATES |
|---------|--|----------|--|--|
| 1 | Selection of project assignment (Part of the Project covered in 5th) | FEBRUARY | 1 | Dt. 14.02.2023, Dt. 15.02.2023 Dt. 21.02.2023, Dt. 22.02.2023 |
| 2 | Planning and execution of considerations | | 2 | Dt. 25.02.2023, Dt. 28.02.2023 |
| 3 | Quality of performance | MARCH | 1 | Dt. 1.03.2023, Dt. 04.03.2023 Dt. 7.03.2023, Dt. 11.03.2023 |
| 4 | Providing solution of the problems or production of final product | | 1 | Dt. 14.03.2023, Dt. 15.03.2023 Dt. 18.03.2023, Dt. 21.03.2023 |
| 5 | Sense of responsibility | | 1 | Dt. 22.03.2023, Dt. 25.03.2023 Dt. 28.03.2023, Dt. 29.03.2023 |
| 6 | Self expression/ communication/ Presentation skills | APRIL | 1 | Dt. 4.04.2023, Dt. 05.04.2023 Dt. 08.04.2023, Dt. 11.04.2023 |
| 7 | Interpersonal skills/human relations | | 1 | Dt. 12.04.2023, Dt. 15.04.2023 Dt. 18.04.2023, Dt. 19.04.2023 |
| 8 | Report writing skills | | 1 | Dt. 22.04.2023, Dt. 25.04.2023 Dt. 26.04.2023, Dt. 29.04.2023 |
| 9 | Viva voce | MAY | 1 | Dt. 02.05.2023, Dt. 03.05.2023 Dt. 06.05.2023, Dt. 09.05.2023 |
| 10 | Presentation | | 5 | Dt. 10.05.2023, Dt. 16.05.2023, Dt. 17.05.23 Dt. 20.05.2023, Dt. 23.05.2023 |

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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:-ELECTRICAL ENGG.

SEMESTER: 6TH

SECTION : EA1

NAME OF THE FACULTY : (1) ER. SUVENDU SEKHAR BEHERA, (2) ER. BIRENDRA BAI (LECT. IN ELECT. ENGG.)

SEMESTER FROM DT. 13.02.2023 TO 23.05.2023

PRACTICAL SUBJECT: LIFE SKILL (PR-3)

CLASS ALLOTTED /WEEK : 02 PERIODS

| Sl. No. | NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED | MONTH | AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS | ACTUAL PROGRESS OF THE COURSES MADE DATES |
|---------|---|----------|--|---|
| 1 | SOCIAL SKILL | FEBRUARY | 1 | Dt. 25.02.2023 |
| 2 | PROBLEM SOLVING | MARCH | 2 | Dt. 04.03.2023, Dt. 11.03.2023 |
| 3 | PRESENTATION SKILL | | 2 | Dt. 18.03.2023, Dt. 25.03.2023 |
| 4 | GROUP DISCUSSION & INTERVIEW TECHNIQUES | APRIL | 2 | Dt. 08.04.2023, Dt. 15.04.2023 |
| 5 | WORKING IN TEAM | | 2 | Dt. 22.04.2023, Dt. 29.04.2023 |
| 6 | TASK MANAGEMENT | MAY | 2 | Dt. 06.05.2023, Dt. 20.05.2023 |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |



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BRANCH:- ELECTRICAL ENGG.

SEMESTER: 6TH

SECTION : EA1

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SEMESTER FROM DT.13.02.2023 TO 23.05.2023

PRACTICAL SUBJECT: STUDENT CENTRED ACTIVITIES

CLASS ALLOTTED /WEEK :- 03 PERIODS

| Sl. No. | NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED | MONTH | AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS | ACTUAL PROGRESS OF THE COURSES MADE DATES |
|---------|---|----------|--|--|
| 1. | Classroom Debate Competition . | FEBRUARY | 2 | Dt. 17.02.2023, Dt. 24.02.2023 |
| 2. | Experiential Learning activities | MARCH | 3 | Dt. 03.03.2023, Dt. 10.03.2023 Dt. 17.03.2023 |
| 3. | Science-based solutions to Environmental Problems . | | 2 | Dt. 24.03.2023 Dt. 31.03.2023 |
| 4. | Student Presentations . | APRIL | 1 | Dt. 21.04.2023 |
| 5. | Develops Practical Skills . | | 1 | Dt. 28.04.2023 |
| 6. | Encourages Teamwork & Collaboration | MAY | 1 | Dt. 12.05.2023 |

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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:-ELECTRICAL ENGG.

SEMESTER: 6TH

SECTION : EA2

NAME OF THE FACULTY : (1) ER. SUBHASHREE PRADHAN (H.O.D., ELECT. ENGG.), (2) ER. SUSHIL KUMAR MAJHI, (LECT. IN ELECT. ENGG.), (3) ER. LILY NAYAK, (4) ER. KRUTIBASA BEHERA (T.A., ELECT. ENGG.)

SEMESTER FROM DT. 13.02.2023 TO 23.05.2023

PRACTICAL SUBJECT: ELECTRICAL WORKSHOP PRACTICE (PR-1)

CLASS ALLOTTED /WEEK :06 PERIODS

| Sl. No. | NAME OF THE PRACTICAL EXPERIMENT/JOB TO BE COVERED | MONTH | AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS | ACTUAL PROGRESS OF THE COURSES MADE DATES |
|---------|---|----------|--|--|
| 1 | Identification of single core (SC), twin core (TC), three cores (3c), four cores (4c); copper and aluminum PVC, VIR & Weather proof (WP) wire and prepare Britannia T-joint and Married joint. | FEBRUARY | 2 | Dt. 16.02.2023 Dt. 20.02.2023 |
| 2 | Cutting copper and aluminum cable and crimping lug to them from 2.5mm ² to 6 mm ² cross section. | | 2 | Dt. 23.02.2023 Dt. 27.02.2023 |
| 3 | Connection and testing of fluorescent tube light, high pressure M.V. lamp, sodium vapor lamp, M.H lamp, CFL and latest model lamps – measure inductance, Lux/ lumens (intensity of illumination) in each case-prepare lux table . | MARCH | 3 | Dt. 02.03.2023 Dt. 06.03.2023 Dt. 09.03.2023 |
| 4 | Study battery charger and make charging of lead acid battery (record charging voltage, current and specific gravity). | | 2 | Dt. 13.03.2023 Dt. 16.03.2023 |
| 5 | Erection of residential building wiring by CTS and conduit wiring system using main two points and test installation by test lamp method and a meggar. | | 3 | Dt. 20.03.2023 Dt. 23.03.2023 Dt. 27.03.2023 |
| 6 | Fault finding & repairing of Ceiling Fan – prepare an inventory list of parts. | APRIL | 2 | Dt. 03.04.2023 Dt. 06.04.2023 |

| Sl. No. | NAME OF THE PRACTICAL EXPERIMENT/JOB TO BE COVERED | MONTH | AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS | ACTUAL PROGRESS OF THE COURSES MADE DATES |
|---------|--|-------|--|--|
| 7 | Find out fault of D.C. generator, repair and test it to run. | | 3 | Dt. 10.04.2023 Dt. 13.04.2023 Dt. 17.04.2023 |
| 8 | Find out fault of D.C. motor starters and A.C motor starter – prepare an inventory list of parts used in different starters. | | 3 | Dt. 20.04.2023 Dt. 24.04.2023 Dt. 27.04.2023 |
| 9 | Dismantle, over haul and assemble a single phase induction motor. Test and run it. – prepare an inventory list. | MAY | 2 | Dt. 01.05.2023 Dt. 04.05.2023 |
| 10 | Dismantle over haul and assemble a three phase squirrel cage and phase wound motor. Test and run them. | | 3 | Dt. 08.05.2023 Dt. 11.05.2023 Dt. 15.05.2023 |
| 11 | Overhaul a single phase and 3-phase variac. | | 2 | Dt. 18.05.2023 Dt. 22.05.2023 |

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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:-ELECTRICAL ENGG.

SEMESTER: 6TH

SECTION : EA2

NAME OF THE FACULTY : (1) ER. RAMESH CHANDRA PRADHAN, (2) ER. SASWATI SANGHAMITRA PRADHAN, (3) ER. SUGYANI SAHOO, (4) ER. PRADYUMNA GARNAIK (LECT. IN ELECT. ENGG.), (5) ER. LILY NAYAK (T.A., ELECT. ENGG.)

SEMESTER FROM DT. 13.02.2023 TO 23.05.2023

PRACTICAL SUBJECT: PROJECT PHASE-2 (PR-2)

CLASS ALLOTTED /WEEK : 08 PERIODS

| Sl. No. | NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED | MONTH | AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS | ACTUAL PROGRESS OF THE COURSES MADE DATES |
|---------|--|----------|--|---|
| 1 | Selection of project assignment <i>Partly work done in 5th sem</i> | FEBRUARY | 1 | Dt. 14.02.2023, Dt. 15.02.2023 Dt. 21.02.2023, Dt. 22.02.2023 |
| 2 | Planning and execution of considerations | | 2 | Dt. 25.02.2023, Dt. 28.02.2023 |
| 3 | Quality of performance | MARCH | 1 | Dt. 01.03.2023, Dt. 04.03.2023 Dt. 07.03.2023, Dt. 11.03.2023 |
| 4 | Providing solution of the problems or production of final product | | 1 | Dt. 14.03.2023, Dt. 15.03.2023 Dt. 18.03.2023, Dt. 21.03.2023 |
| 5 | Sense of responsibility | | 1 | Dt. 22.03.2023, Dt. 25.03.2023 Dt. 28.03.2023, Dt. 29.03.2023 |
| 6 | Self expression/ communication/ Presentation skills | APRIL | 1 | Dt. 04.04.2023, Dt. 05.04.2023 Dt. 08.04.2023, Dt. 11.04.2023 |
| 7 | Interpersonal skills/human relations | | 1 | Dt. 12.04.2023, Dt. 15.04.2023 Dt. 18.04.2023, Dt. 19.04.2023 |
| 8 | Report writing skills | | 1 | Dt. 22.04.2023, Dt. 25.04.2023 Dt. 26.04.2023, Dt. 29.04.2023 |
| 9 | Viva voce | | 1 | Dt. 02.05.2023, Dt. 03.05.2023 Dt. 06.05.2023, Dt. 09.05.2023 |
| 10 | Presentation | | 5 | Dt. 10.05.2023, Dt. 15.05.23, Dt. 17.5.23 Dt. 20.05.2023, Dt. 23.05.2023 |

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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:-ELECTRICAL ENGG.

SEMESTER: 6TH

SECTION : EA2

NAME OF THE FACULTY : (1) ER. SUVENDU SEKHAR BEHERA, (2) ER. BIRENDRA BAI (LECT. IN ELECT. ENGG.)

SEMESTER FROM DT. 13.02.2023 TO 23.05.2023

PRACTICAL SUBJECT: LIFE SKILL (PR-3)

CLASS ALLOTTED /WEEK : 02 PERIODS

| Sl. No. | NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED | MONTH | AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS | ACTUAL PROGRESS OF THE COURSES MADE DATES |
|---------|---|----------|--|---|
| 1 | SOCIAL SKILL | FEBRUARY | 1 | Dt. 25.02.2023 |
| 2 | PROBLEM SOLVING | MARCH | 2 | Dt. 04.03.2023, Dt. 11.03.2023 |
| 3 | PRESENTATION SKILL | | 2 | Dt. 18.03.2023, Dt. 25.03.2023 |
| 4 | GROUP DISCUSSION & INTERVIEW TECHNIQUES | APRIL | 2 | Dt. 08.04.2023, Dt. 15.04.2023 |
| 5 | WORKING IN TEAM | | 2 | Dt. 22.04.2023, Dt. 29.04.2023 |
| 6 | TASK MANAGEMENT | MAY | 2 | Dt. 06.05.2023, Dt. 20.05.2023 |
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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- ELECTRICAL ENGG.

SEMESTER: 6TH

SECTION : EA2

NAME OF THE FACULTY : (1) ER. SUBHASHREE PRADHAN (H.O.D.), (2) ER. BIBHUTI BHUSAN SAHU (LECT. IN ELECT. ENGG.)

SEMESTER FROM DT.13.02.2023 TO 23.05.2023

PRACTICAL SUBJECT: STUDENT CENTRED ACTIVITIES

CLASS ALLOTTED /WEEK :- 03 PERIODS

| Sl. No. | NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED | MONTH | AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS | ACTUAL PROGRESS OF THE COURSES MADE DATES |
|---------|---|----------|--|---|
| 1. | Classroom Debate competition | FEBRUARY | 2 | Dt. 17.02.2023 Dt. 24.02.2023 |
| 2. | Experiential learning activities | MARCH | 3 | Dt. 03.03.2023, Dt. 2.10.03.2023 Dt. 17.03.2023. |
| 3. | Science-based solutions to Environmental Problems. | | 2 | Dt. 24.03.2023 Dt. 31.03.2023 |
| 4. | Student Presentations | APRIL | 1 | Dt. 21.04.2023 |
| 5. | Develops practical skills. | | 1 | Dt. 25.04.2023 |
| 6. | Encourages Teamwork & Collaboration. | MAY | 1 | Dt. 12.05.2023 |

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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:-ELECTRICAL ENGG.

SEMESTER: 6TH

SECTION : EB1

NAME OF THE FACULTY : (1) ER. RAMESH CHANDRA PRADHAN, (2) ER. BIBHUTI BHUSAN SAHU, (3) ER. SUSHIL KUMAR MAJHI, (4) ER. DEBABRATA DIBYARANJAN (LECT. IN ELECT. ENGG.)

SEMESTER FROM DT. 13.02.2023 TO 23.05.2023

PRACTICAL SUBJECT: ELECTRICAL WORKSHOP PRACTICE (PR-1)

CLASS ALLOTTED /WEEK :06 PERIODS

| Sl. No. | NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED | MONTH | AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS | ACTUAL PROGRESS OF THE COURSES MADE DATES |
|---------|---|----------|--|--|
| 1 | Identification of single core (SC), twin core (TC), three cores (3c), four cores (4c); copper and aluminum PVC, VIR & Weather proof (WP) wire and prepare Britannia T-joint and Married joint. | FEBRUARY | 3 | Dt. 14.02.2023 Dt. 15.02.2023 Dt. 21.02.2023 |
| 2 | Cutting copper and aluminum cable and crimping lug to them from 2.5mm ² to 6 mm ² cross section. | | 2 | Dt. 22.02.2023 Dt. 28.02.2023 |
| 3 | Connection and testing of fluorescent tube light, high pressure M.V. lamp, sodium vapor lamp, M.H lamp, CFL and latest model lamps – measure inductance, Lux/ lumens (intensity of illumination) in each case-prepare lux table . | MARCH | 3 | Dt. 01.03.2023 Dt. 07.03.2023 Dt. 14.03.2023 |
| 4 | Study battery charger and make charging of lead acid battery (record charging voltage, current and specific gravity). | | 2 | Dt. 15.03.2023 Dt. 21.03.2023 |
| 5 | Erection of residential building wiring by CTS and conduit wiring system using main two points and test installation by test lamp method and a meggar. | | 3 | Dt. 22.03.2023 Dt. 28.03.2023 Dt. 29.03.2023 |
| 6 | Fault finding & repairing of Ceiling Fan – prepare an inventory list of parts. | APRIL | 3 | Dt. 04.04.2023 Dt. 05.04.2023 Dt. 11.04.2023 |

| Sl. No. | NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED | MONTH | AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS | ACTUAL PROGRESS OF THE COURSES MADE DATES |
|---------|--|-------|--|--|
| 7 | Find out fault of D.C. generator, repair and test it to run. | | 3 | Dt. 12.04.2023 Dt. 18.04.2023 Dt. 19.04.2023 |
| 8 | Find out fault of D.C. motor starters and A.C motor starter – prepare an inventory list of parts used in different starters. | | 2 | Dt. 25.04.2023 Dt. 26.04.2023 |
| 9 | Dismantle, over haul and assemble a single phase induction motor. Test and run it. – prepare an inventory list. | MAY | 2 | Dt. 02.05.2023 Dt. 03.05.2023 |
| 10 | Dismantle over haul and assemble a three phase squirrel cage and phase wound motor. Test and run them. | | 2 | Dt. 09.05.2023 Dt. 10.05.2023 |
| 11 | Overhaul a single phase and 3-phase variac. | | 3 | Dt. 16.05.2023 Dt. 17.05.2023 Dt. 23.05.2023 |

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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:-ELECTRICAL ENGG.

SEMESTER: 6TH

SECTION : EB1

NAME OF THE FACULTY : (1) ER. DEBABRATA DIBYARANJAN, (2) ER. SWAGAT SAHOO, (3) ER. SUSHIL SAHOO, (4) ER. BIBHUTI BHUSAN SAHU, (4) ER. SUGYANI SAHOO (LECT. IN ELECT. ENGG.)

SEMESTER FROM DT. 13.02.2023 TO 23.05.2023

PRACTICAL SUBJECT: PROJECT PHASE-2 (PR-2)

CLASS ALLOTTED WEEK : 08 PERIODS

| Sl. No. | NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED | MONTH | AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS | ACTUAL PROGRESS OF THE COURSES MADE DATES |
|---------|---|----------|--|--|
| 1 | Selection of project assignment | FEBRUARY | 4 | Dt. 16.02.2023, Dt. 20.02.2023 Dt. 23.02.2023, Dt. 25.02.2023 |
| 2 | Planning and execution of considerations | | 1 | Dt. 27.02.2023 |
| 3 | Quality of performance | MARCH | 6 | Dt. 2.03.2023, Dt. 4.3.2023, Dt. 6.3.2023 Dt. 9.03.2023, Dt. 11.3.2023, Dt. 13.3.23 |
| 4 | Providing solution of the problems or production of final product | | 6 | Dt. 16.03.23, Dt. 18.03.23, Dt. 20.3.23 Dt. 23.03.23, Dt. 25.03.23, Dt. 27.3.23 |
| 5 | Sense of responsibility | APRIL | 4 | Dt. 03.04.23, Dt. 06.04.2023 Dt. 08.04.2023, Dt. 10.04.2023 |
| 6 | Self expression/ communication/ Presentation skills | | 4 | Dt. 13.04.2023, Dt. 15.04.2023 Dt. 17.04.2023, Dt. 20.4.2023 |
| 7 | Interpersonal skills/human relations | | 4 | Dt. 22.04.2023, Dt. 24.04.2023 Dt. 27.04.2023, Dt. 29.04.2023 |
| 8 | Report writing skills | MAY | 3 | Dt. 01.05.2023, Dt. 02.05.2023 Dt. 04.05.2023 |
| 9 | Viva voce | | 4 | Dt. 06.05.2023, Dt. 08.05.2023 Dt. 11.05.2023, Dt. 15.05.2023 |
| 10 | Presentation | | 3 | Dt. 18.05.2023, Dt. 20.05.2023 Dt. 22.05.2023 |

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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:-ELECTRICAL ENGG.

SEMESTER: 6TH

SECTION : EB1

NAME OF THE FACULTY : (1) ER. SASWATI SANGHAMITRA PRADHAN (LECT. IN ELECT. ENGG.), (2) ER. KRUTIBASA BEHERA (T.A., ELECT. ENGG.)

SEMESTER FROM DT. 13.02.2023 TO 23.05.2023

PRACTICAL SUBJECT: LIFE SKILL (PR-3)

CLASS ALLOTTED /WEEK : 02 PERIODS

| Sl. No. | NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED | MONTH | AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS | ACTUAL PROGRESS OF THE COURSES MADE DATES |
|---------|---|----------|--|---|
| 1 | SOCIAL SKILL | FEBRUARY | 1 | Dt. 25.02.2023 |
| 2 | PROBLEM SOLVING | MARCH | 2 | Dt. 04.03.2023, Dt. 11.03.2023 |
| 3 | PRESENTATION SKILL | MAR | 2 | Dt. 18.03.2023, Dt. 25.03.2023 |
| 4 | GROUP DISCUSSION & INTERVIEW TECHNIQUES | APRIL | 2 | Dt. 08.04.2023, Dt. 15.04.2023 |
| 5 | WORKING IN TEAM | | 2 | Dt. 22.04.2023, Dt. 29.04.2023 |
| 6 | TASK MANAGEMENT | MAY | 2 | Dt. 06.05.2023, Dt. 20.05.23 |
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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- ELECTRICAL ENGG.

SEMESTER: 6TH

SECTION : EB1

NAME OF THE FACULTY : (1) ER. SAKTIDATTA PRADHAN, (2) ER. SWAGAT SAHOO (LECT. IN ELECT. ENGG.)

SEMESTER FROM DT.13.02.2023 TO 23.05.2023

PRACTICAL SUBJECT: STUDENT CENTRED ACTIVITIES

CLASS ALLOTTED /WEEK :- 03 PERIODS

| Sl. No. | NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED | MONTH | AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS | ACTUAL PROGRESS OF THE COURSES MADE DATES |
|---------|---|----------|--|--|
| 1. | Classroom Debate competition | FEBRUARY | 2 | Dt. 17.02.2023 Dt. 24.02.2023 |
| 2. | Experiential learning activities | MARCH | 2 | Dt. 03.03.2023 Dt. 10.03.2023 |
| 3. | Science-based solutions to Environmental problems. | | 3 | Dt. 17.03.2023 Dt. 24.03.2023, Dt. 31.03.23 |
| 4. | Student Presentations | APRIL | 2 | Dt. 21.04.2023, Dt. 28.04.23 |
| 5. | Develops practical skills | MAY | 1 | Dt. 12.05.2023 |
| 6. | | | | |



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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:-ELECTRICAL ENGG.

SEMESTER: 6TH

SECTION : EB2

NAME OF THE FACULTY : (1) ER. RAMESH CHANDRA PRADHAN, (2) ER. BIBHUTI BHUSAN SAHU, (3) ER. SUSHIL KUMAR MAJHI, (4) ER. DEBABRATA DIBYARANJAN (LECT. IN ELECT. ENGG.)

SEMESTER FROM DT. 13.02.2023 TO 23.05.2023

PRACTICAL SUBJECT: ELECTRICAL WORKSHOP PRACTICE (PR-1)

CLASS ALLOTTED /WEEK :06 PERIODS

| Sl. No. | NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED | MONTH | AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS | ACTUAL PROGRESS OF THE COURSES MADE DATES |
|---------|---|----------|--|--|
| 1 | Identification of single core (SC), twin core (TC), three cores (3c), four cores (4c); copper and aluminum PVC, VIR & Weather proof (WP) wire and prepare Britannia T- joint and Married joint. | FEBRUARY | 3 | Dt. 14. 02. 2023 Dt. 15. 02. 2023 Dt. 21. 02. 2023 |
| 2 | Cutting copper and aluminum cable and crimping lug to them from 2.5mm ² to 6 mm ² cross section. | | 2 | Dt. 22. 02. 2023 Dt. 28. 02. 2023 |
| 3 | Connection and testing of fluorescent tube light, high pressure M.V. lamp, sodium vapor lamp, M.H lamp, CFL and latest model lamps – measure inductance, Lux/ lumens (intensity of illumination) in each case-prepare lux table . | MARCH | 3 | Dt. 01. 03. 2023 Dt. 07. 03. 2023 Dt. 14. 03. 2023 |
| 4 | Study battery charger and make charging of lead acid battery (record charging voltage, current and specific gravity). | | 2 | Dt. 15. 03. 2023 Dt. 21. 03. 2023 |
| 5 | Erection of residential building wiring by CTS and conduit wiring system using main two points and test installation by test lamp method and a meggar. | | 3 | Dt. 22. 03. 2023 Dt. 28. 03. 2023 Dt. 29. 03. 2023 |
| 6 | Fault finding & repairing of Ceiling Fan – prepare an inventory list of parts. | APRIL | 3 | Dt. 04. 04. 2023 Dt. 05. 04. 2023 Dt. 11. 04. 2023 |

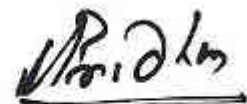
| Sl. No. | NAME OF THE PRACTICAL EXPERIMENT/JOB TO BE COVERED | MONTH | AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS | ACTUAL PROGRESS OF THE COURSES MADE DATES |
|---------|--|-------|--|--|
| 7 | Find out fault of D.C. generator, repair and test it to run. | | 3 | Dt. 12.04.2023 Dt. 18.04.2023 Dt. 19.04.2023 |
| 8 | Find out fault of D.C. motor starters and A.C motor starter – prepare an inventory list of parts used in different starters. | | 2 | Dt. 25.04.2023 Dt. 26.04.2023 |
| 9 | Dismantle, over haul and assemble a single phase induction motor. Test and run it. – prepare an inventory list. | MAY | 2 | Dt. 02.05.2023 Dt. 03.05.2023 |
| 10 | Dismantle over haul and assemble a three phase squirrel cage and phase wound motor. Test and run them. | | 2 | Dt. 09.05.2023 Dt. 10.05.2023 |
| 11 | Overhaul a single phase and 3-phase variac. | | 3 | Dt. 14.05.2023 Dt. 17.05.2023 Dt. 23.05.2023 |





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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:-ELECTRICAL ENGG.

SEMESTER: 6TH

SECTION : EB2

NAME OF THE FACULTY : (1) ER. DEBABRATA DIBYARANJAN, (2) ER. SWAGAT SAHOO, (3) ER. SUSHIL SAHOO, (4) ER. BIBHUTI BHUSAN SAHU, (5) ER. SUGYANI SAHOO (LECT. IN ELECT. ENGG.)

SEMESTER FROM DT. 13.02.2023 TO 23.05.2023

PRACTICAL SUBJECT: PROJECT PHASE-2 (PR-2)

CLASS ALLOTTED /WEEK : 08 PERIODS

| Sl. No. | NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED | MONTH | AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS | ACTUAL PROGRESS OF THE COURSES MADE DATES |
|---------|---|----------|--|---|
| 1 | Selection of project assignment | FEBRUARY | 5 | Dt. 16.02.2023, Dt. 20.02.23, Dt. 23.2.23 Dt. 25.02.2023, Dt. 27.02.2023 |
| 2 | Planning and execution of considerations | MARCH | 4 | Dt. 02.03.2023, Dt. 04.03.2023 Dt. 06.03.2023, Dt. 09.03.2023 |
| 3 | Quality of performance | | 4 | Dt. 11.03.2023, Dt. 13.03.2023 Dt. 16.03.2023, Dt. 18.03.2023 |
| 4 | Providing solution of the problems or production of final product | | 4 | Dt. 20.03.2023, Dt. 23.03.2023 Dt. 25.03.2023, Dt. 27.03.2023 |
| 5 | Sense of responsibility | APRIL | 4 | Dt. 03.04.2023, Dt. 06.04.2023 Dt. 8.04.2023, Dt. 10.04.2023 |
| 6 | Self expression/ communication/ Presentation skills | | 4 | Dt. 13.04.2023, Dt. 15.04.2023 Dt. 17.04.2023, Dt. 20.04.2023 |
| 7 | Interpersonal skills/human relations | | 4 | Dt. 22.04.2023, Dt. 24.04.2023 Dt. 27.04.2023, Dt. 29.04.2023 |
| 8 | Report writing skills | MAY | 3 | Dt. 01.05.2023, Dt. 02.05.23 Dt. 04.05.2023 |
| 9 | Viva voce | | 3 | Dt. 06.05.2023, Dt. 8.05.2023 Dt. 11.05.2023 |
| 10 | Presentation | | 4 | Dt. 15.05.2023, Dt. 18.05.2023 Dt. 20.05.2023, Dt. 22.05.2023 |

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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:-ELECTRICAL ENGG.

SEMESTER: 6TH

SECTION : EB2

NAME OF THE FACULTY : (1) ER. SASWATI SANGHAMITRA PRADHAN (LECT. IN ELECT. ENGG.), (2) ER. KRUTIBASA BEHERA (T.A., ELECT. ENGG.)

SEMESTER FROM DT. 13.02.2023 TO 23.05.2023

PRACTICAL SUBJECT: LIFE SKILL (PR-3)

CLASS ALLOTTED /WEEK : 02 PERIODS

| Sl. No. | NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED | MONTH | AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS | ACTUAL PROGRESS OF THE COURSES MADE DATES |
|---------|---|----------|--|---|
| 1 | SOCIAL SKILL | FEBRUARY | 1 | Dt. 25.02.2023 |
| 2 | PROBLEM SOLVING | MARCH | | Dt. 04.03.2023, Dt. 11.03.2023 |
| 3 | PRESENTATION SKILL | | | Dt. 18.03.2023, Dt. 25.03.2023 |
| 4 | GROUP DISCUSSION & INTERVIEW TECHNIQUES | APRIL | | Dt. 08.04.2023, Dt. 15.04.2023 |
| 5 | WORKING IN TEAM | | | Dt. 22.04.2023, Dt. 29.04.2023 |
| 6 | TASK MANAGEMENT | MAY | | Dt. 06.05.2023, Dt. 20.05.2023 |
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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- ELECTRICAL ENGG.

SEMESTER: 6TH

SECTION : EB2

NAME OF THE FACULTY : (1) ER. SAKTIDATTA PRADHAN, (2) ER. SWAGAT SAHOO (LECT. IN ELECT. ENGG.)

SEMESTER FROM DT.13.02.2023 TO 23.05.2023

PRACTICAL SUBJECT: STUDENT CENTRED ACTIVITIES

CLASS ALLOTTED /WEEK :- 03 PERIODS

| Sl. No. | NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED | MONTH | AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS | ACTUAL PROGRESS OF THE COURSES MADE DATES |
|---------|---|----------|--|--|
| 1. | Classroom Debate Competition | FEBRUARY | 2 | Dt. 17.02.2023 Dt. 24.02.2023 |
| 2. | Experiential learning activities | MARCH | 3 | Dt. 03.03.2023, Dt. 10.03.2023 Dt. 17.03.2023 |
| 3. | Science-based solutions to Environmental Problems. | | 2 | Dt. 24.03.2023 Dt. 31.03.2023 |
| 4. | Student presentations. | APRIL | 2 | Dt. 21.04.2023 Dt. 28.04.2023 |
| 5. | Encourages Teamwork & collaboration | MAY | 1 | Dt. 12.05.2023 |
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