

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

**THEORY LESSON PLAN FOR THE SESSION 2023 - 24**

**BRANCH : MINING ENGINEERING, SEMESTER : 4TH,  
SECTION : MNA**

**NAME OF THE FACULTY : (1) ER. DILLIP KUMAR DEHURY (H.O.D.,  
MINING ENGG.), (2) ER. UDAYA BISWANATH PRADHAN (LECT. IN  
MINING ENGG.)**

**SEMESTER FROM : 16.01.2024 to 26.04.2024**

**THEORY SUBJECT: UNDERGROUND COAL MINING (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       | Introduction to Underground Coal Mining                         | 4                                      |          |                                     |
|         | Define mine and different methods of mining                     | 2                                      | JANUARY  | Dt - 16.1.2024<br>Dt - 17.1.2024    |
|         | Classify Underground Coal Mining Methods                        | 2                                      |          | Dt. 18.1.2024<br>Dt. 22.1.2024      |
| 2       | <b>Bord and Pillar Method</b>                                   | <b>15</b>                              |          |                                     |
|         | Various application of Bord & Pillar method                     | 2                                      |          | Dt. 24.1.2024<br>Dt. 25.1.2024      |
|         | Various layouts of Bord & Pillar method                         | 2                                      |          | Dt. 29.1.2024                       |
|         | Depillaring method with stowing and caving                      | 2                                      |          | Dt. 30.1.2024<br>Dt. 31.1.2024      |
|         | Precautions against fire and water during and after depillaring | 1                                      | FEBRUARY | Dt. 1.2.2024                        |
|         | Various machineries used in working face                        | 3                                      |          | Dt. 5.2.2024<br>Dt. 6.2.2024        |
|         | Define contigeous seam                                          | 1                                      |          | Dt. 7.2.2024                        |
|         | Working of contiguous seams                                     | 1                                      |          | Dt. 8.2.2024                        |
|         | Working of seams above and below goaved out area                | 2                                      |          | Dt. 12.2.2024                       |
|         | Advantages and disadvantages of Bord & Pillar method            | 1                                      |          | Dt. 13.2.2024                       |



| Sl. No. | CHAPTERS TO BE COVERED                                      | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |  |
|---------|-------------------------------------------------------------|----------------------------------------|-------|-------------------------------------|--|
| 3       | <b>Longwall Method</b>                                      | 10                                     |       |                                     |  |
|         | Describe Longwall advancing                                 | 2                                      |       | Dt. 15.2.2024<br>Dt. 19.2.2024      |  |
|         | Retreating methods                                          | 2                                      |       | Dt. 20.2.2024<br>Dt. 21.2.2024      |  |
|         | Single unit and double unit face                            | 2                                      |       | Dt. 22.2.2024<br>Dt. 26.2.2024      |  |
|         | Cyclic and non-cyclic L/W layouts                           | 1                                      |       | Dt. 27.2.2024                       |  |
|         | Mechanized longwall working with armoured flexible conveyor | 1                                      |       | Dt. - 28.2.2024                     |  |
|         | Shield support                                              | 1                                      |       | Dt. 29.2.2024                       |  |
|         | Shearer loader                                              | 1                                      | MARCH | Dt. 4.3.2024                        |  |
| 4       | <b>Thick seam Mining</b>                                    | 8                                      |       |                                     |  |
|         | Define Thick seams                                          | 1                                      |       | Dt. 6-3.2024                        |  |
|         | Classify Thick seam Mining                                  | 2                                      |       | Dt. 7.3.2024                        |  |
|         | Describe layouts of horizontal slicing                      | 2                                      |       | Dt. 11-3.2024                       |  |
|         | Incline slicing                                             | 1                                      |       | Dt. 12-3.2024                       |  |
|         | Blasting gallery                                            | 1                                      |       | Dt. 13-3.2024                       |  |
|         | Sublevel caving                                             | 1                                      |       | Dt. 14.3.2024                       |  |



| Sl. No. | CHAPTERS TO BE COVERED                          | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |  |
|---------|-------------------------------------------------|----------------------------------------|-------|-------------------------------------|--|
| 5       | <b>Horizon Mining</b>                           | 3                                      |       |                                     |  |
|         | State conditions, advantages of horizon mining  | 1                                      |       | Dt. 18.3.2024                       |  |
|         | Disadvantages and limitations of Horizon Mining | 1                                      |       | Dt. 18.3.2024                       |  |
|         | Describe the layout of Horizon Mining           | 1                                      |       | Dt. 19.3.2024                       |  |
| 6       | <b>Hydraulic and Pneumatic stowing</b>          | 3                                      |       |                                     |  |
|         | Describe hydraulic stowing                      | 2                                      |       | Dt. 20.3.2024                       |  |
|         | Describe Pneumatic stowing                      | 1                                      |       | Dt. 21.3.2024                       |  |
| 7       | <b>Support and roof control in Mines</b>        | 10                                     |       |                                     |  |
|         | State properties of roof                        | 1                                      |       | Dt. 27.3.2024                       |  |
|         | Various types of roof                           | 2                                      |       | Dt. 28.3.2024                       |  |
|         | Roof behavior                                   | 1                                      |       | Dt. 28.3.2024                       |  |
|         | Pressure arch theory in B&P                     | 1                                      | APRIL | Dt. 2.4.2024                        |  |
|         | Longwall working.                               | 1                                      |       | Dt. 3.4.2024                        |  |
|         | Describe testing of roof.                       | 1                                      |       | Dt. 4.4.2024                        |  |
|         | support system in Mines construction            | 1                                      |       | Dt. 8.4.2024                        |  |
|         | principle of operation application              | 1                                      |       | Dt. 9.4.2024                        |  |
|         | load bearing capacity assessment                | 1                                      |       | Dt. 10.4.2024.                      |  |



| Sl. No. | CHAPTERS TO BE COVERED                                                                | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |  |
|---------|---------------------------------------------------------------------------------------|----------------------------------------|-------|-------------------------------------|--|
| 8       | <b>Subsidence due to Mining</b>                                                       | 3                                      |       |                                     |  |
|         | Define angle of draw, factors of subsidence, critical area of extraction              | 1                                      |       | Dt. 15.4.2024                       |  |
|         | Factors affecting subsidence,                                                         | 1                                      |       | Dt. 16.4.2024                       |  |
|         | Describe precautionary measures against damage due to subsidence, Define shaft pillar | 1                                      |       | Dt. 18.4.2024                       |  |
| 9       | <b>Shaft Sinking</b>                                                                  | 4                                      |       |                                     |  |
|         | Vertical shaft and inclined shaft; determine shape and size of shaft                  | 1                                      |       | Dt. 22.4.2024                       |  |
|         | Location of shaft. Describe sinking through normal ground. State shaft plumbing       | 1                                      |       | Dt. 23.4.2024                       |  |
|         | Sinking through difficult ground, cementation, freezing, mechanized shaft sinking     | 1                                      |       | Dt. 24.4.2024                       |  |
|         | Sinking upward, widening and deepening of shafts                                      | 1                                      |       | Dt. 25.4.2024                       |  |

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**BRANCH : MINING ENGINEERING, SEMESTER : 4TH,  
SECTION : MNA**

**NAME OF THE FACULTY : (1) ER. DILLIP KUMAR DEHURY (H.O.D. MINING NGG.), (2) ER.SIBASUNDAR MAIKAP (LECT. IN MINING ENGG.)**

**SEMESTER FROM : 16.01.2024 to 26.04.2024**

**THEORY SUBJECT: MINE SURVEY - II (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       | <b>Tacheometry</b>                                                                                    | <b>10</b>                              |          |                                     |  |
|         | Stadia & its principle                                                                                | 2                                      | JANUARY  | Dt. 16.1.2024                       |  |
|         | Explain diaphragm                                                                                     | 2                                      |          | Dt. 17.1.2024                       |  |
|         | Reticules                                                                                             | 1                                      |          | Dt. 18.1.2024                       |  |
|         | Acheometer                                                                                            | 1                                      |          | Dt. 22.1.2024                       |  |
|         | Instruments constants                                                                                 | 1                                      |          | Dt. 24.1.2024                       |  |
|         | Find out height & distance from stadia intercepts                                                     | 1                                      |          | Dt. 25.1.2024                       |  |
|         | Tangential systems                                                                                    | 1                                      |          | Dt. 29.1.2024                       |  |
|         | Movable hair method                                                                                   | 1                                      |          | Dt. 30.1.2024                       |  |
| 2       | <b>Triangulation and Trilateration</b>                                                                | <b>12</b>                              |          |                                     |  |
|         | State purpose & principle involved in triangulation & trilateration method                            | 2                                      |          | Dt. 31.1.2024.                      |  |
|         | Classify various methods of triangulation survey primary, secondary & tertiary colliery triangulation | 2                                      | FEBRUARY | Dt. 1.2.2024<br>Dt. 5.2.2024        |  |
|         | Develop concept about reconnaissance survey                                                           | 2                                      |          | Dt. 6.2.2024                        |  |
|         | Measuring angle, types of theodolite used in triangulation survey                                     | 2                                      |          | Dt. 7.2.2024<br>Dt. 8.2.2024        |  |



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|---------|-----------------------------------------------------------------|----------------------------------------|-------|-------------------------------------|
|         | Methods of base line measurement using E.D.M.                   | 1                                      |       | Dt. 12.2.2024                       |
|         | Define tape correction                                          | 1                                      |       | Dt. 13.2.2024                       |
|         | Construction of triangulation station of permanent nature       | 2                                      |       | Dt. 15.2.2024<br>19.2.2024          |
| 3       | <b>Correlation of Surface and Underground Survey</b>            | <b>10</b>                              |       |                                     |
|         | Direct correlation by traversing & optical methods              | 2                                      |       | Dt. 20.2.2024 , 21.2.2024           |
|         | Orientation by wires in two shafts                              | 2                                      |       | Dt. 22.2.2024 , 26.2.2024           |
|         | Correlation by mines in vertical shafts                         | 2                                      |       | Dt. 27.2.2024 , 28.2.2024           |
|         | State co-planning/ alignment                                    | 1                                      |       | Dt. 29.2.2024.                      |
|         | Weissbach triangle weis-quadrilateral methods                   | 1                                      | MARCH | Dt. 4.3.2024                        |
|         | Precise magnetic correlation                                    | 2                                      |       | Dt. 6-3.2024                        |
| 4       | <b>Setting Out Curves</b>                                       | <b>10</b>                              |       |                                     |
|         | Elements of curves                                              | 1                                      |       | Dt. 7.3.2024                        |
|         | Designation of curves, simple                                   | 1                                      |       | Dt. 11.3.2024                       |
|         | Compound curve                                                  | 1                                      |       | Dt. 12.3.2024                       |
|         | Reverse curves curve                                            | 1                                      |       | Dt. 13.3.2024                       |
|         | Setting out of surface & underground curves by chords & offsets | 1                                      |       | Dt. 14.3.2024                       |
|         | Chords and angle, tangent and offset                            | 1                                      |       | Dt. 18.3.2024                       |
|         | Plate layers method                                             | 1                                      |       | Dt. 19.3.2024                       |
|         | Various setting out by chain & one theodolite                   | 1                                      |       | Dt. 20.3.2024                       |
|         | Various setting out by chain & two theodolite                   | 1                                      |       | Dt. 21.3.2024                       |
|         | Define super elevation, transition and vertical curves          | 1                                      |       | Dt. 27.3.2024                       |



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|---------|-----------------------------------------------|----------------------------------------|-------|-------------------------------------|--|
| 5       | Stope Surveying                               | 10                                     |       |                                     |  |
|         | Tape triangulation                            | 1                                      |       | Dt. 28.3.2024                       |  |
|         | Instrumental survey                           | 1                                      | APRIL | Dt. 2.4.2024                        |  |
|         | Determine stope face                          | 1                                      |       | Dt. 3.4.2024                        |  |
|         | Preparation of stope planes                   | 1                                      |       | Dt. 7.4.2024                        |  |
|         | Plotting the stope station                    | 1                                      |       | Dt. 8.4.2024                        |  |
|         | Plotting of stope face to the mine plan       | 1                                      |       | Dt. 9.4.2024                        |  |
|         | Area of extraction by Planimeter              | 2                                      |       | Dt. 10.4.2024                       |  |
|         | Calculation of triangle thereof.              | 2                                      |       | Dt. 15.4.2024                       |  |
| 6       | G.P.S. & Total Station                        | 8                                      |       |                                     |  |
|         | Basic principles of global positioning system | 2                                      |       | Dt. 16.4.2024 , 18.4.2024           |  |
|         | Total station                                 | 3                                      |       | Dt. 22.4.2024 , 23.4.2024           |  |
|         | Introduction to DGPS.                         | 3                                      |       | Dt. 24.4.2024 , 25.4.2024.          |  |

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SECTION : MNA**

**NAME OF THE FACULTY : (1) ER. PRATYUSHA PRAVANJAN  
BEHERA, (2) ER. PRATYUSH ROUT, (LECT. IN MINING ENGG.)**

**SEMESTER FROM : 16.01.2024 to 26.04.2024**

**THEORY SUBJECT: MINE VENTILATION (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       | <b>Natural Ventilation</b>                                                                                     | 8                                      | January |                                     |
|         | Natural ventilation and factors affecting natural ventilation                                                  | 1                                      |         | Dt. 16/1/2024                       |
|         | Different types of Thermometer                                                                                 | 1                                      |         | Dt. 17/1/2024                       |
|         | Different types of Barometer                                                                                   | 1                                      |         | Dt. 18/1/2024                       |
|         | Kata thermometer, water gauge                                                                                  | 1                                      |         | Dt. 22/1/2024                       |
|         | Ventilation pressure by using piton static tube                                                                | 1                                      |         | Dt. 24/1/2024                       |
|         | Effects of heat & humidity                                                                                     | 1                                      |         | Dt. 25/1/2024                       |
|         | Natural ventilation motive column, geothermic gradient                                                         | 1                                      |         | Dt. 29/1/2024                       |
|         | Statutory provision as per CMR 2017, MMR 1961, Enumerate laws of mine air friction and solve problems on above | 1                                      |         | Dt. 30/1/2024<br>Dt- 31/1/2024      |
| 2       | <b>Air Crossing and Distribution</b>                                                                           | 10                                     | Feb     |                                     |
|         | Ventilation stopping, air crossing                                                                             | 1                                      |         | Dt- 01/2/2024                       |
|         | Ventilation door, brattice partition                                                                           | 1                                      |         | Dt- 5/2/2024                        |
|         | Different types of ventilation                                                                                 | 1                                      |         | Dt- 6/2/2024                        |
|         | Accessional & declensional ventilation                                                                         | 1                                      |         | Dt- 7/2/2024                        |
|         | Homotropical & Antitropical ventilation                                                                        | 1                                      |         | Dt- 8/2/2024                        |
|         | Boundary ventilation                                                                                           | 1                                      |         | Dt- 12/2/2024                       |



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|---------|----------------------------------------------------------------|----------------------------------------|-------|-------------------------------------|--|
|         | Central & combined ventilation                                 | 1                                      |       | Dt- 13/2/2024                       |  |
|         | Splitting of air current                                       | 1                                      |       | Dt- 15/2/2024                       |  |
|         | Air locks at pit top                                           | 2                                      |       | Dt- 19/2/2024                       |  |
| 3       | <b>Mechanical Ventilation</b>                                  | 9                                      |       |                                     |  |
|         | Construction & principle of operation of centrifugal flow fans | 2                                      |       | Dt- 20/2/2024                       |  |
|         | Fan laws & calculate fan efficiency and capacity               | 1                                      |       | Dt- 21/2/2024                       |  |
|         | Installation of mine fan with reversal arrangement             | 1                                      |       | Dt- 22/2/2024                       |  |
|         | Describe fan                                                   | 1                                      |       | Dt- 26/2/2024                       |  |
|         | Fan drive, evasee                                              | 1                                      |       | Dt- 27/2/2024                       |  |
|         | Diffusers                                                      | 1                                      |       | Dt- 28/2/2024                       |  |
|         | Fan characteristics and mine characteristics                   | 1                                      |       | Dt- 29/2/2024                       |  |
|         | Methods of output of mine fans                                 | 1                                      | Mar   | Dt- 4/3/2024                        |  |
| 4       | <b>Booster Fan and its Effects</b>                             | 10                                     |       |                                     |  |
|         | Installation of booster fan                                    | 2                                      |       | Dt- 6/3/2024                        |  |
|         | Location of booster fan                                        | 2                                      |       | Dt- 7/3/2024                        |  |
|         | Purpose of booster fan                                         | 2                                      |       | Dt- 11/3/2024                       |  |
|         | Solve problems relating to booster fan                         | 4                                      |       | Dt- 12/3/2024                       |  |
| 5       | <b>Auxiliary Ventilation</b>                                   | 7                                      |       |                                     |  |
|         | Systems of auxiliary ventilation                               | 3                                      |       | Dt- 13/3/2024                       |  |
|         | Advantages of auxiliary ventilation                            | 2                                      |       | Dt- 14/3/2024                       |  |
|         | Disadvantages of auxiliary ventilation                         | 2                                      |       | Dt- 19/3/2024                       |  |



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|---------|-----------------------------------------------------|----------------------------------------|-------|-------------------------------------|
| 6       | <b>Ventilation Survey</b>                           | 10                                     |       |                                     |
|         | Methods of pressure survey using barometer          | 1                                      |       | Dt- 20 / 3 / 2024                   |
|         | Gauge and pitot tube with manometer                 | 1                                      |       | Dt- 21 / 3 / 2024                   |
|         | Method of measurement of cross-sectional area       | 1                                      |       | Dt- 27 / 3 / 2024                   |
|         | Method of velocity measurements by using anemometer | 1                                      |       | Dt- 28 / 3 / 2024                   |
|         | Voltmeter                                           | 1                                      | April |                                     |
|         | Pitot- static tube                                  | 1                                      |       | Dt- 2 / 4 / 2024 Dt- 3 / 4 / 2024   |
|         | Smoke & cloud method                                | 1                                      |       | Dt- 4 / 4 / 2024 Dt- 8 / 4 / 2024   |
|         | Determine percentage of oxygen                      | 1                                      |       | Dt- 9 / 4 / 2024 Dt- 10 / 4 / 2024  |
|         | Determine percentage of methane                     | 1                                      |       | Dt- 15 / 4 / 2024 Dt- 16 / 4 / 2024 |
|         | carbon monoxide SO <sub>2</sub> & H <sub>2</sub> S. | 1                                      |       | Dt- 18 / 4 / 2024 Dt- 22 / 4 / 2024 |
| 7       | <b>Leakage of Air in Mines</b>                      | 6                                      |       |                                     |
|         | Causes of leakage of air in mines                   | 3                                      |       | Dt- 23 / 4 / 2024 Dt- 24 / 4 / 2024 |
|         | Preventive measures of leakage of air in mines      | 3                                      |       | Dt- 25 / 4 / 2024                   |

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SECTION : MNA**

**NAME OF THE FACULTY : (1) ER. PRADYUMNA GARNAIK,  
(2) ER. SUSHIL KUMAR MAJHI (LECT. IN ELECT. ENGG.)**

**SEMESTER FROM : 16.01.2024 to 26.04.2024**

**THEORY SUBJECT: ELECTRICAL EQUIPMENT IN MINES (TH-4)**

**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       | <b>Electrical Cables for Mining Use</b>                                                  | <b>5</b>                               | <i>Jan</i> |                                      |
|         | Cables for mining use                                                                    | 1                                      |            | <i>Dt- 16/01/2024</i>                |
|         | Constructional features of high tension and low-tension cables armored & trailing cables | 1                                      |            | <i>Dt- 17/01/2024</i>                |
|         | State size of cables & their use                                                         | 1                                      |            | <i>Dt- 18/01/2024</i>                |
|         | State procedures of cable laying at surface, underground roadway & in shaft              | 1                                      |            | <i>Dt- 22/01/2024</i>                |
|         | Cable joint box mining type                                                              | 1                                      |            | <i>Dt- 24/01/2024</i>                |
| 2       | <b>Protective Systems</b>                                                                | <b>14</b>                              |            |                                      |
|         | Fuse Materials                                                                           | 1                                      |            | <i>Dt- 25/01/2024</i>                |
|         | Rewireable Fuse, HRC Fuse. Uses of Fuse                                                  | 1                                      |            | <i>Dt- 29/01/2024</i>                |
|         | Describe & Explain Air Circuit Breaker                                                   | 1                                      |            | <i>Dt- 30/01/2024</i>                |
|         | Describe & Explain Minimum Oil Circuit Breaker (MOCB).                                   | 1                                      |            | <i>Dt- 31/01/2024</i>                |
|         | Describe & Explain Bulk Oil Circuit Breaker (BOCB).                                      | 1                                      | <i>Feb</i> | <i>Dt- 01/02/2024 Dt- 05/02/2024</i> |
|         | Describe & Explain Air Blast Circuit Breaker                                             | 1                                      |            | <i>Dt- 06/02/2024 Dt- 07/02/2024</i> |
|         | Describe SF6 Circuit Breaker                                                             | 1                                      |            | <i>Dt- 08/02/2024 Dt- 12/02/2024</i> |
|         | Explain essential qualities of a good protective system                                  | 1                                      |            | <i>Dt- 13/02/2024 Dt- 15/02/2024</i> |



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|---------|--------------------------------------------------------------------------------------------------------|----------------------------------------|-------|-------------------------------------|
|         | State & describe types of relays                                                                       | 1                                      |       | Dt- 19/02/2024                      |
|         | Describe protection of transformer by differential relay                                               | 1                                      |       | Dt- 20/02/2024 Dt- 21/02/2024       |
|         | General principle of working-basis remote control circuit & various protective devices of Gate-End Box | 1                                      |       | Dt- 22/02/2024<br>Dt- 26/02/2024    |
|         | Describe functions & operation of drill panel                                                          | 1                                      |       | Dt- 27/02/2024                      |
|         | Earthing system in mines                                                                               | 1                                      |       | Dt- 28/02/2024                      |
|         | Voltage limit                                                                                          | 1                                      |       | Dt- 29/02/2024                      |
| 3       | <b>Fundamentals of Transformer</b>                                                                     | 10                                     | March |                                     |
| 4       | <b>Industrial drives- Mining type</b>                                                                  | 4                                      |       | Dt- 04/03/2024                      |
|         | Starting & running characteristics of D.C. motor                                                       | 1                                      |       | Dt- 06/03/2024                      |
|         | Starting & running characteristics of A.C moter                                                        | 1                                      |       | Dt- 07/03/2024 Dt- 11/03/2024       |
|         | Selection of motors for mining use                                                                     | 2                                      |       | Dt- 12/03/2024 Dt- 13/03/2024       |
| 5       | <b>Electric Braking Used in Mines</b>                                                                  | 8                                      |       |                                     |
|         | Describe & explain regenerative braking                                                                | 4                                      |       | Dt- 14/03/2024 Dt- 18/03/2024       |
|         | Describe & explain magnetic braking.                                                                   | 4                                      |       | Dt- 19/03/2024 Dt- 20/03/2024       |
| 6       | <b>Flame Proof &amp; Intrinsically Safe Apparatus</b>                                                  | 5                                      |       |                                     |
|         | flame proof apparatus & intrinsically safe apparatus.                                                  | 2                                      |       | Dt- 21/03/2024                      |
|         | explain the safety features of flame proof & intrinsically safe appartus                               | 3                                      |       | Dt- 27/03/2024 Dt- 28/03/2024       |



| Sl. No. | CHAPTERS TO BE COVERED                     | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|--------------------------------------------|----------------------------------------|-------|-------------------------------------|
| 7       | <b>Underground Signaling Arrangement</b>   | 4                                      | April |                                     |
|         | signals & shaft signal.                    | 1                                      |       | Dt- 02/04/2024 Dt- 03/04/2024       |
|         | communication system in U/G mines.         | 1                                      |       | Dt- 04/04/2024 Dt- 08/04/2024       |
|         | Point to point communication.              | 1                                      |       | Dt- 09/04/2024 Dt- 10/04/2024       |
|         | Intercom system/Telephone, Cordless system | 1                                      |       | Dt- 15/04/2024 Dt- 16/04/2024       |
| 8       | <b>Sensors &amp; Their Applications</b>    | 5                                      |       |                                     |
| 9       | <b>Battery locomotive</b>                  | 1                                      |       | Dt- 16/04/2024                      |
|         | Automation with Thyroster control          | 1                                      |       | Dt- 18/04/2024 Dt- 22/04/2024       |
|         | Electrical LHD                             | 1                                      |       | Dt- 23/04/2024 Dt- 24/04/2024       |
|         | Electric mine phone.                       | 2                                      |       | Dt- 25/04/2024                      |

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

**THEORY LESSON PLAN FOR THE SESSION 2023 - 24**

**BRANCH : MINING ENGINEERING, SEMESTER : 4TH,  
SECTION : MNB**

**NAME OF THE FACULTY : (1) ER. DILLIP KUMAR DEHURY (H.O.D.,  
MINING ENGG.), (2) ER. UDAYA BISWANATH PRADHAN (LECT. IN  
MINING ENGG.)**

**SEMESTER FROM : 16.01.2024 to 26.04.2024**

**THEORY SUBJECT: UNDERGROUND COAL MINING (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       | <b>Introduction to Underground Coal Mining</b>                  | 4                                      |          |                                     |
|         | Define mine and different methods of mining                     | 2                                      | JANUARY  | Dt. 16.1.2024<br>Dt. 17.1.2024      |
|         | Classify Underground Coal Mining Methods                        | 2                                      |          | Dt. 18.1.2024                       |
| 2       | <b>Bord and Pillar Method</b>                                   | 15                                     |          |                                     |
|         | Various application of Bord & Pillar method                     | 2                                      |          | Dt. 22.1.2024.<br>Dt. 24.1.2024     |
|         | Various layouts of Bord & Pillar method                         | 2                                      |          | Dt. 25.1.2024<br>Dt. 29.1.2024      |
|         | Depillaring method with stowing and caving                      | 2                                      |          | Dt. 30.1.2024<br>Dt. 31.1.2024      |
|         | Precautions against fire and water during and after depillaring | 1                                      | FEBRUARY | Dt. 1.2.2024                        |
|         | Various machineries used in working face                        | 3                                      |          | Dt. 5.2.2024<br>6.2.2024            |
|         | Define contigeous seam                                          | 1                                      |          | Dt. 7.2.2024                        |
|         | Working of contiguous seams                                     | 1                                      |          | Dt. 8.2.2024                        |
|         | Working of seams above and below goaved out area                | 2                                      |          | Dt. 12.2.2024                       |
|         | Advantages and disadvantages of Bord & Pillar method            | 1                                      |          | Dt. 13.2.2024.                      |



| Sl. No. | CHAPTERS TO BE COVERED                                      | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |  |
|---------|-------------------------------------------------------------|----------------------------------------|-------|-------------------------------------|--|
| 3       | <b>Longwall Method</b>                                      | 10                                     |       |                                     |  |
|         | Describe Longwall advancing                                 | 2                                      |       | Dt. 15-2-2024<br>Dt. 19-2-2024      |  |
|         | Retreating methods                                          | 2                                      |       | Dt. 20-2-2024<br>Dt. 21-2-2024      |  |
|         | Single unit and double unit face                            | 2                                      |       | Dt. 22-2-2024                       |  |
|         | Cyclic and non-cyclic L/W layouts                           | 1                                      |       | Dt. 26-2-2024                       |  |
|         | Mechanized longwall working with armoured flexible conveyor | 1                                      |       | Dt. 27-2-2024                       |  |
|         | Shield support                                              | 1                                      |       | Dt. 28-2-2024                       |  |
|         | Shearer loader                                              | 1                                      |       | Dt. 29-2-2024                       |  |
| 4       | <b>Thick seam Mining</b>                                    | 8                                      |       |                                     |  |
|         | Define Thick seams                                          | 1                                      | MARCH | Dt. 4-3-2024                        |  |
|         | Classify Thick seam Mining                                  | 2                                      |       | Dt. 6-3-2024                        |  |
|         | Describe layouts of horizontal slicing                      | 2                                      |       | Dt. 7-3-2024                        |  |
|         | Incline slicing                                             | 1                                      |       | Dt. 11-3-2024                       |  |
|         | Blasting gallery                                            | 1                                      |       | Dt. 12-3-2024                       |  |
|         | Sublevel caving                                             | 1                                      |       | Dt. 13-3-2024                       |  |



| Sl. No. | CHAPTERS TO BE COVERED                          | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |  |
|---------|-------------------------------------------------|----------------------------------------|-------|-------------------------------------|--|
| 5       | <b>Horizon Mining</b>                           | 3                                      |       |                                     |  |
|         | State conditions, advantages of horizon mining  | 1                                      |       | Dt. 14.3.2024                       |  |
|         | Disadvantages and limitations of Horizon Mining | 1                                      |       | Dt. 14.3.2024                       |  |
|         | Describe the layout of Horizon Mining           | 1                                      |       | Dt. 18.3.2024.                      |  |
| 6       | <b>Hydraulic and Pneumatic stowing</b>          | 3                                      |       |                                     |  |
|         | Describe hydraulic stowing                      | 2                                      |       | Dt. 19.3.2024                       |  |
|         | Describe Pneumatic stowing                      | 1                                      |       | Dt. 20.3.2024.                      |  |
| 7       | <b>Support and roof control in Mines</b>        | 10                                     |       |                                     |  |
|         | State properties of roof                        | 1                                      |       | Dt. 21.3.2024.                      |  |
|         | Various types of roof                           | 2                                      |       | Dt. 27.3.2024.<br>Dt. 28.3.2024.    |  |
|         | Roof behavior                                   | 1                                      |       | Dt. 28.3.2024.                      |  |
|         | Pressure arch theory in B&P                     | 1                                      | APRIL | Dt. 2.4.2024                        |  |
|         | Longwall working.                               | 1                                      |       | Dt. 3.4.2024                        |  |
|         | Describe testing of roof.                       | 1                                      |       | Dt. 4.4.2024                        |  |
|         | support system in Mines construction            | 1                                      |       | Dt. 8.4.2024                        |  |
|         | principle of operation application              | 1                                      |       | Dt. 9.4.2024                        |  |
|         | load bearing capacity assessment                | 1                                      |       | Dt. 10.4.2024.                      |  |



| Sl. No. | CHAPTERS TO BE COVERED                                                                | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |  |
|---------|---------------------------------------------------------------------------------------|----------------------------------------|-------|-------------------------------------|--|
| 8       | <b>Subsidence due to Mining</b>                                                       | 3                                      |       |                                     |  |
|         | Define angle of draw, factors of subsidence, critical area of extraction              | 1                                      |       | 01.15.4.2024.                       |  |
|         | Factors affecting subsidence,                                                         | 1                                      |       | 01.16.4.2024.                       |  |
|         | Describe precautionary measures against damage due to subsidence, Define shaft pillar | 1                                      |       | 01.18.4.2024.                       |  |
| 9       | <b>Shaft Sinking</b>                                                                  | 4                                      |       |                                     |  |
|         | Vertical shaft and inclined shaft; determine shape and size of shaft                  | 1                                      |       | 01.22.4.2024                        |  |
|         | Location of shaft. Describe sinking through normal ground. State shaft plumbing       | 1                                      |       | 01.23.4.2024.                       |  |
|         | Sinking through difficult ground, cementation, freezing, mechanized shaft sinking     | 1                                      |       | 01.24.4.2024                        |  |
|         | Sinking upward, widening and deepening of shafts                                      | 1                                      |       | 01.25.4.2024                        |  |

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**THEORY LESSON PLAN FOR THE SESSION 2023 - 24**

**BRANCH : MINING ENGINEERING, SEMESTER : 4TH,  
SECTION : MNB**

**NAME OF THE FACULTY : (1) ER. DILLIP KUMAR DEHURY (H.O.D. MINING NGG.), (2) ER.SIBASUNDAR MAIKAP (LECT. IN MINING ENGG.)**

**SEMESTER FROM : 16.01.2024 to 26.04.2024**

**THEORY SUBJECT: MINE SURVEY - II (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       | <b>Tacheometry</b>                                                                                    | <b>10</b>                              |          |                                     |
|         | Stadia & its principle                                                                                | 2                                      | JANUARY  | Dt - 16.1.2024                      |
|         | Explain diaphragm                                                                                     | 2                                      |          | Dt - 17.1.2024                      |
|         | Reticules                                                                                             | 1                                      |          | Dt - 18.1.2024                      |
|         | Acheometer                                                                                            | 1                                      |          | Dt - 22.1.2024                      |
|         | Instruments constants                                                                                 | 1                                      |          | Dt - 24.1.2024                      |
|         | Find out height & distance from stadia intercepts                                                     | 1                                      |          | Dt - 25.1.2024                      |
|         | Tangential systems                                                                                    | 1                                      |          | Dt - 29.1.2024                      |
|         | Movable hair method                                                                                   | 1                                      |          | Dt - 30.1.2024                      |
| 2       | <b>Triangulation and Trilateration</b>                                                                | <b>12</b>                              |          |                                     |
|         | State purpose & principle involved in triangulation & trilateration method                            | 2                                      |          | Dt - 31.1.2024                      |
|         | Classify various methods of triangulation survey primary, secondary & tertiary colliery triangulation | 2                                      | FEBRUARY | Dt - 1.2.2024<br>Dt - 5.2.2024      |
|         | Develop concept about reconnaissance survey                                                           | 2                                      |          | Dt - 6.2.2024                       |
|         | Measuring angle, types of theodolite used in triangulation survey                                     | 2                                      |          | Dt - 7.2.2024<br>Dt - 8.2.2024      |



| Sl. No. | CHAPTERS TO BE COVERED                                          | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE | COURSES MADE  |
|---------|-----------------------------------------------------------------|----------------------------------------|-------|-------------------------------------|---------------|
|         | Methods of base line measurement using E.D.M.                   | 1                                      |       | Dt 12.2.2024                        |               |
|         | Define tape correction                                          | 1                                      |       | Dt 13.2.2024                        |               |
|         | Construction of triangulation station of permanent nature       | 2                                      |       | Dt 15.2.2024<br>Dt 19.2.2024        |               |
| 3       | <b>Correlation of Surface and Underground Survey</b>            | <b>10</b>                              |       |                                     |               |
|         | Direct correlation by traversing & optical methods              | 2                                      |       | Dt. 20.2.2024                       | Dt. 21.2.2024 |
|         | Orientation by wires in two shafts                              | 2                                      |       | Dt. 22.2.2024                       | Dt. 26.2.2024 |
|         | Correlation by mines in vertical shafts                         | 2                                      |       | Dt. 27.2.2024                       | Dt. 28.2.2024 |
|         | State co-planning/ alignment                                    | 1                                      |       | Dt. 29.2.2024                       |               |
|         | We ssbach triangle weis-quadrilateral methods                   | 1                                      | MARCH | Dt. 4.3.2024                        |               |
|         | Precise magnetic correlation                                    | 2                                      |       | Dt. 6.3.2024                        |               |
| 4       | <b>Setting Out Curves</b>                                       | <b>10</b>                              |       |                                     |               |
|         | Elements of curves                                              | 1                                      |       | Dt 7.3.2024                         |               |
|         | Designation of curves, simple                                   | 1                                      |       | Dt - 11.3.2024                      |               |
|         | Compound curve                                                  | 1                                      |       | Dt - 12.3.2024                      |               |
|         | Reverse curves curve                                            | 1                                      |       | Dt - 13.3.2024                      |               |
|         | Setting out of surface & underground curves by chords & offsets | 1                                      |       | Dt - 14.3.2024                      |               |
|         | Chcrds and angle, tangent and offset                            | 1                                      |       | Dt - 18.3.2024                      |               |
|         | Plate layers method                                             | 1                                      |       | Dt 19.3.2024                        |               |
|         | Various setting out by chain & one theodolite                   | 1                                      |       | Dt. 20.3.2024                       |               |
|         | Various setting out by chain & teo theodolite                   | 1                                      |       | Dt. 21.3.2024                       |               |
|         | Define super elevation, transition and vertical curves          | 1                                      |       | Dt. 27.3.2024                       |               |



| Sl. No. | CHAPTERS TO BE COVERED                        | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |               |
|---------|-----------------------------------------------|----------------------------------------|-------|-------------------------------------|---------------|
| 5       | <b>Stope Surveying</b>                        | 10                                     |       | Dt.                                 |               |
|         | Tape triangulation                            | 1                                      |       | Dt - 28.3.2024                      |               |
|         | Instrumental survey                           | 1                                      | APRIL | Dt. 2.4.2024                        |               |
|         | Determine stope face                          | 1                                      |       | Dt. 3.4.2024                        |               |
|         | Preparation of stope planes                   | 1                                      |       | Dt. 4.4.2024                        |               |
|         | Plotting the stope station                    | 1                                      |       | Dt. 8.4.2024                        |               |
|         | Plotting of stope face to the mine plan       | 1                                      |       | Dt. 9.4.2024                        |               |
|         | Area of extraction by Planimeter              | 2                                      |       | Dt 10.4.2024                        |               |
|         | Calculation of triangle thereof.              | 2                                      |       | Dt. 15.4.2024                       |               |
| 6       | <b>G.P.S. &amp; Total Station</b>             | 8                                      |       |                                     |               |
|         | Basic principles of global positioning system | 2                                      |       | Dt. 16.4.2024                       | Dt. 18.4.2024 |
|         | Total station                                 | 3                                      |       | Dt. 22.4.2024                       | Dt. 23.4.2024 |
|         | Introduction to DGPS.                         | 3                                      |       | Dt. 24.4.2024                       | Dt. 25.4.2024 |

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**THEORY LESSON PLAN FOR THE SESSION 2023 - 24**

**BRANCH : MINING ENGINEERING, SEMESTER : 4TH,  
SECTION : MNB**

**NAME OF THE FACULTY : (1) ER. PRATYUSHA PRAVANJAN BEHERA,  
(2) ER. PRATYUSH ROUT, (LECT. IN MINING ENGG.)**

**SEMESTER FROM : 16.01.2024 to 26.04.2024**

**THEORY SUBJECT: MINE VENTILATION (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       | <b>Natural Ventilation</b>                                                                                     | 8                                      | Jan   |                                     |
|         | Natural ventilation and factors affecting natural ventilation                                                  | 1                                      |       | Dt- 16/01/24                        |
|         | Different types of Thermometer                                                                                 | 1                                      |       | Dt- 17/01/24                        |
|         | Different types of Barometer                                                                                   | 1                                      |       | Dt- 18/01/24                        |
|         | Kata thermometer, water gauge                                                                                  | 1                                      |       | Dt- 22/01/24                        |
|         | Ventilation pressure by using piton static tube                                                                | 1                                      |       | Dt- 24/01/24                        |
|         | Effects of heat & humidity                                                                                     | 1                                      |       | Dt- 25/01/2024                      |
|         | Natural ventilation motive column, geothermic gradient                                                         | 1                                      |       | Dt- 29/01/2024                      |
|         | Statutory provision as per CMR 2017, MMR 1961, Enumerate laws of mine air friction and solve problems on above | 1                                      |       | Dt- 30/01/2024<br>Dt- 31/01/2024    |
| 2       | <b>Air Crossing and Distribution</b>                                                                           | 10                                     | Feb   |                                     |
|         | Ventilation stopping, air crossing                                                                             | 1                                      |       | Dt- 01/02/2024                      |
|         | Ventilation door, brattice partition                                                                           | 1                                      |       | Dt- 5/02/2024                       |
|         | Different types of ventilation                                                                                 | 1                                      |       | Dt- 6/02/2024                       |
|         | Accessional & declensional ventilation                                                                         | 1                                      |       | Dt- 7/02/2024                       |
|         | Homotropical & Antitropical ventilation                                                                        | 1                                      |       | Dt- 8/2/2024                        |
|         | Boundary ventilation                                                                                           | 1                                      |       | Dt- 12/2/2024                       |



| Sl. No. | CHAPTERS TO BE COVERED                                         | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|----------------------------------------------------------------|----------------------------------------|-------|-------------------------------------|
|         | Central & combined ventilation                                 | 1                                      |       | Dt-13/2/2024 Dt-15/2/2024           |
|         | Splitting of air current                                       | 1                                      |       | Dt-19/2/2024 Dt-20/2/2024           |
|         | Air locks at pit top                                           | 2                                      |       | Dt-21/2/2024 Dt-22/2/2024           |
|         | <b>Mechanical Ventilation</b>                                  | <b>9</b>                               |       |                                     |
|         | Construction & principle of operation of centrifugal flow fans | 2                                      |       | Dt-26/02/2024<br>Dt-27/02/2024      |
|         | Fan laws & calculate fan efficiency and capacity               | 1                                      |       | Dt-28/02/2024<br>Dt-29/02/2024      |
|         | Installation of mine fan with reversal arrangement             | 1                                      | Mar   | Dt-4/3/2024                         |
| 3       | Describe fan                                                   | 1                                      |       | Dt-6/3/2024                         |
|         | Fan drive, evasee                                              | 1                                      |       | Dt-7/3/2024                         |
|         | Diffusers                                                      | 1                                      |       | Dt-11/3/2024                        |
|         | Fan characteristics and mine characteristics                   | 1                                      |       | Dt-12/3/2024                        |
|         | Methods of output of mine fans                                 | 1                                      |       | Dt-13/3/2024                        |
|         | <b>Booster Fan and its Effects</b>                             | <b>10</b>                              |       |                                     |
|         | Installation of booster fan                                    | 2                                      |       | Dt-14/3/2024 Dt-18/3/2024           |
| 4       | Location of booster fan                                        | 2                                      |       | Dt-19/3/2024                        |
|         | Purpose of booster fan                                         | 2                                      |       | Dt-20/3/2024                        |
|         | Solve problems relating to booster fan                         | 4                                      |       | Dt-21/3/2024                        |
|         | <b>Auxiliary Ventilation</b>                                   | <b>7</b>                               |       |                                     |
|         | Systems of auxiliary ventilation                               | 3                                      |       | Dt-27/3/2024                        |
| 5       | Advantages of auxiliary ventilation                            | 2                                      |       | Dt-28/3/2024                        |
|         | Disadvantages of auxiliary ventilation                         | 2                                      | Apr   | Dt-2/4/2024                         |



| Sl. No. | CHAPTERS TO BE COVERED                              | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|-----------------------------------------------------|----------------------------------------|-------|-------------------------------------|
| 6       | <b>Ventilation Survey</b>                           | 10                                     |       |                                     |
|         | Methods of pressure survey using barometer          | 1                                      |       | Dt-3/4/2024                         |
|         | Gauge and pitot tube with manometer                 | 1                                      |       | Dt-4/4/2024                         |
|         | Method of measurement of cross-sectional area       | 1                                      |       | Dt-8/4/2024                         |
|         | Method of velocity measurements by using anemometer | 1                                      |       | Dt-9/4/2024                         |
|         | Voltmeter                                           | 1                                      |       | Dt-10/4/2024                        |
|         | P tot- static tube                                  | 1                                      |       | Dt-15/4/2024                        |
|         | Smoke & cloud method                                | 1                                      |       | Dt-16/4/2024                        |
|         | Determine percentage of oxygen                      | 1                                      |       | Dt-18/4/2024                        |
|         | Determine percentage of methane                     | 1                                      |       | Dt-22/4/2024                        |
|         | carbon monoxide SO2 & H2S.                          | 1                                      |       | Dt-23/4/2024                        |
| 7       | <b>Leakage of Air in Mines</b>                      | 6                                      |       |                                     |
|         | Causes of leakage of air in mines                   | 3                                      |       | Dt-24/4/2024                        |
|         | Preventive measures of leakage of air in mines      | 3                                      |       | Dt-25/4/2024                        |

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**THEORY LESSON PLAN FOR THE SESSION 2023 - 24**

**BRANCH : MINING ENGINEERING, SEMESTER : 4TH,  
SECTION : MNB**

**NAME OF THE FACULTY : (1) ER. PRADYUMNA GARNAIK,  
(2) ER. SWAGAT SAHOO (LECT. IN ELECT. ENGG.)**

**SEMESTER FROM : 16.01.2024 to 26.04.2024**

**THEORY SUBJECT: ELECTRICAL EQUIPMENT IN MINES (TH-4)**

**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       | <b>Electrical Cables for Mining Use</b>                                                  | <b>5</b>                               | <b>Jan</b> |                                     |
|         | Cables for mining use                                                                    | 1                                      |            | Dt - 16/01/2024                     |
|         | Constructional features of high tension and low-tension cables armored & trailing cables | 1                                      |            | Dt - 17/01/2024                     |
|         | State size of cables & their use                                                         | 1                                      |            | Dt - 18/01/2024                     |
|         | State procedures of cable laying at surface, underground roadway & in shaft              | 1                                      |            | Dt - 22/01/2024                     |
|         | Cable joint box mining type                                                              | 1                                      |            | Dt - 24/01/2024                     |
| 2       | <b>Protective Systems</b>                                                                | <b>14</b>                              |            |                                     |
|         | Fuse Materials                                                                           | 1                                      |            | Dt - 25/01/2024                     |
|         | Rewireable Fuse, HRC Fuse. Uses of Fuse                                                  | 1                                      |            | Dt - 29/01/2024                     |
|         | Describe & Explain Air Circuit Breaker                                                   | 1                                      |            | Dt - 30/01/2024                     |
|         | Describe & Explain Minimum Oil Circuit Breaker (MOCB).                                   | 1                                      |            | Dt - 31/01/2024                     |
|         | Describe & Explain Bulk Oil Circuit Breaker (BOCB).                                      | 1                                      | <b>Feb</b> | Dt - 01/02/2024<br>Dt - 05/02/2024  |
|         | Describe & Explain Air Blast Circuit Breaker                                             | 1                                      |            | Dt - 06/02/2024<br>Dt - 07/02/2024  |
|         | Describe SF6 Circuit Breaker                                                             | 1                                      |            | Dt - 08/02/2024<br>Dt - 12/02/2024  |
|         | Explain essential qualities of a good protective system                                  | 1                                      |            | Dt - 13/02/2024<br>Dt - 15/02/2024  |



| Sl. No. | CHAPTERS TO BE COVERED                                                                                 | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |  |
|---------|--------------------------------------------------------------------------------------------------------|----------------------------------------|-------|-------------------------------------|--|
|         | State & describe types of relays                                                                       | 1                                      |       | Dt- 19/02/2024                      |  |
|         | Describe protection of transformer by differential relay                                               | 1                                      |       | Dt- 20/02/2024<br>Dt- 21/02/2024    |  |
|         | General principle of working-basis remote control circuit & various protective devices of Gate-End Box | 1                                      |       | Dt- 22/02/2024<br>Dt- 26/02/2024    |  |
|         | Describe functions & operation of drill panel                                                          | 1                                      |       | Dt- 27/02/2024                      |  |
|         | Earthing system in mines                                                                               | 1                                      |       | Dt- 28/02/2024                      |  |
|         | Voltage limit                                                                                          | 1                                      |       | Dt- 29/02/2024                      |  |
| 3       | <b>Fundamentals of Transformer</b>                                                                     | 10                                     | March |                                     |  |
|         | <b>Industrial drives- Mining type</b>                                                                  | 4                                      |       | Dt- 04/03/2024                      |  |
| 4       | Starting & running characteristics of D.C. motor                                                       | 1                                      |       | Dt- 04/03/2024 Dt- 06/03/2024       |  |
|         | Starting & running characteristics of A.C moter                                                        | 1                                      |       | Dt- 07/03/2024 Dt- 11/03/2024       |  |
|         | Selection of motors for mining use                                                                     | 2                                      |       | Dt- 12/03/2024 Dt- 13/03/2024       |  |
|         | <b>Electric Braking Used in Mines</b>                                                                  | 8                                      |       | Dt- 14/03/2024                      |  |
| 5       | Describe & explain regenerative braking                                                                | 4                                      |       | Dt- 18/03/2024 Dt- 19/03/2024       |  |
|         | Describe & explain magnetic braking.                                                                   | 4                                      |       | Dt- 20/03/2024 Dt- 21/03/2024       |  |
|         | <b>Flame Proof &amp; Intrinsically Safe Apparatus</b>                                                  | 5                                      |       | Dt- 21/03/2024                      |  |
| 6       | flame proof apparatus & intrinsically safe apparatus.                                                  | 2                                      |       | Dt- 27/03/2024                      |  |
|         | explain the safety features of flame proof & intrinsically safe appartus                               | 3                                      |       | Dt- 28/03/2024                      |  |



| Sl. No. | CHAPTERS TO BE COVERED                     | NO OF PERIODS AS PER ACADEMIC CALENDAR | MONTH | ACTUAL PROGRESS OF THE COURSES MADE |
|---------|--------------------------------------------|----------------------------------------|-------|-------------------------------------|
| 7       | <b>Underground Signaling Arrangement</b>   | 4                                      | April |                                     |
|         | signals & shaft signal.                    | 1                                      |       | Dt-02/04/2024 Dt-03/04/2024         |
|         | communication system in U/G mines.         | 1                                      |       | Dt-04/04/2024 Dt-08/04/2024         |
|         | Point to point communication.              | 1                                      |       | Dt-09/04/2024 Dt-10/04/2024         |
|         | Intercom system/Telephone, Cordless system | 1                                      |       | Dt-15/04/2024 Dt-16/04/2024         |
| 8       | <b>Sensors &amp; Their Applications</b>    | 5                                      |       |                                     |
| 9       | <b>Battery locomotive</b>                  | 1                                      |       | Dt-16/04/2024                       |
|         | Automation with Thyroster control          | 1                                      |       | Dt-18/04/2024 Dt-22/04/2024         |
|         | Electrical LHD                             | 1                                      |       | Dt-23/04/2024 Dt-24/04/2024         |
|         | Electric mine phone.                       | 2                                      |       | Dt-25/04/2024                       |

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

## PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-MINING ENGG

SEMESTER: 4TH

SECTION : MNA1

NAME OF THE FACULTY : (1) ER. SUNIL KUMAR SAHU, (2) ER. SIBASUNDAR MAIKAP (LECT. IN MINING ENGG.)

SEMESTER FROM DT. 16.01.2024 TO 26.04.2024

PRACTICAL SUBJECT : MINE SURVEY - II LAB. (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       | Fix triangulation and measurement of peripheral and hub angles. Base line measurement applying all corrections and plotting by co-ordinates. | Jan   | 1                                                | 18/1/2024                                 |
| 2       | Determine the north.                                                                                                                         |       | 1                                                | 22/1/2024                                 |
| 3       | Set out curves by Total Station and Theodolites.                                                                                             |       | 1                                                | 25/1/2024                                 |
| 4       | Correlate underground and surface survey during survey camp.                                                                                 |       | 1                                                | 29/1/2024                                 |
| 5       | Measurement of Horizontal & Vertical angles, measurement of distance by Total Station.                                                       | Feb   | 2                                                | 1/2/2024<br>5/2/2024                      |
| 6       | Mining lease boundary survey using Total Station .                                                                                           |       | 2                                                | 8/2/2024<br>12/2/2024                     |
| 7       | Base line fixation using Total Station.                                                                                                      |       | 2                                                | 15/2/2024<br>19/2/2024                    |
| 8       | Coordinate point shifting and reference point shifting by Total Station                                                                      |       | 3                                                | 22/2/2024<br>26/2/2024<br>29/2/2024       |



| 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 |
|---------|-----------------------------------------------------------------------------------------------------------------------------|--------|--------------------------------------------------|-------------------------------------------|
| 9       | Fixation of control point by 02 traversing (both Horizontal and Vertical control points) with Total Station and auto level. | march  | 2                                                | 4/3/2024<br>7/3/2024                      |
| 10      | Topographic survey & existing features.                                                                                     |        | 1                                                | 11/3/2024                                 |
| 11      | Area calculation using software.                                                                                            |        | 2                                                | 14/3/2024<br>18/3/2024                    |
| 12      | Volume calculation using software                                                                                           |        | 2                                                | 21/3/2024<br>28/3/2024                    |
| 13      | GPS Survey.                                                                                                                 | April. | 2                                                | 4/4/2024<br>8/4/2024                      |
| 14      | Preparation of plan and section using AUTOCAD.                                                                              |        | 2                                                | 15/4/2024<br>18/4/2024                    |
| 15      | DGPS Survey.                                                                                                                |        | 1                                                | 22/4/2024                                 |
| 16      | Reserve calculation of Ore.                                                                                                 |        | 1                                                | 25/4/2024                                 |

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**PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24**

**BRANCH:-MINING ENGG**

**SEMESTER: 4TH**

**SECTION : MNA1**

**NAME OF THE FACULTY : (1) ER. PRATYUSH ROUT, (2) ER. SRIKANTA SAMAL (LECT. IN MINING ENGG.)**

**SEMESTER FROM DT. 16.01.2024 TO 26.04.2024**

**PRACTICAL SUBJECT : MINE VENTILATION LAB (PR-2)**

**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       | Determine the relative humidity by stationary hygrometer.                                                                                              | Jan   | 2                                                | 16   1   2024<br>19   1   2024                             |
| 2       | Determine the relative humidity by storow's hygrometer.                                                                                                |       | 1                                                | 30   1   2024                                              |
| 3       | Determine the cooling power of mine air using Kata thermometer.                                                                                        | Feb   | 4                                                | 2   2   2024 9   2   2024<br>6   2   2024 13   2   2024    |
| 4       | Study and sketching of air crossing, ventilation doors at pit-top & different types of explosive proof fire stopp ing.                                 |       | 4                                                | 16   2   2024 23   2   2024<br>20   2   2024 27   2   2024 |
| 5       | Study & use of Vane Anemometer, Digital Anemometer, Velometer, Pitot static-tube measurement of quantity of air flow. Study of digital pressure meter. | Mar   | 4                                                | 1   3   2024 15   3   2024<br>12   3   2024 19   3   2024  |
| 6       | Determination of duct characteristic.                                                                                                                  |       | 1                                                | 22   3   2024                                              |
| 7       | Study of constructional features of axial flow and centrifugal fans.                                                                                   | Apr   | 4                                                | 2   4   2024 9   4   2024<br>5   4   2024 12   4   2024    |
| 8       | Determination of fan characteristic curve.                                                                                                             |       | 1                                                | 16   4   2024                                              |
| 9       | Study and sketching of regulator, airlocks.                                                                                                            |       | 1                                                | 19   4   2024                                              |
| 10      | Study and use of digital anemometer.                                                                                                                   |       | 1                                                | 23   4   2024                                              |
| 11      | Measurement of quantity of air flow by digital anemometer                                                                                              |       | 1                                                | 26   4   2024                                              |

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**PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24**

**BRANCH:-MINING ENGG**

**SEMESTER: 4TH**

**SECTION : MNA1**

**NAME OF THE FACULTY : (1) ER. SWAGAT SAHOO (LECT. IN ELECT. ENGG), (2) ER. KRUTIBASA BEHERA (T.A., ELECT. ENGG.)**

**SEMESTER FROM DT. 16.01.2024 TO 26.04.2024**

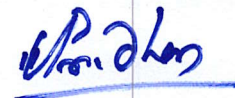
**PRACTICAL SUBJECT: ELECTRICAL EQUIPMENT IN MINES LAB (PR-3)**

**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       | Prepare an Electrical switch board to control two light points, one plug point, one fan point and put a required fuse. | Jan   | 4                                                | 17   1   2024 24   1   2024<br>20   1   2024 31   1   2024                |
| 2       | Study of circuit breakers (Air Circuit Breaker & Oil Circuit Breaker).                                                 | Feb   | 4                                                | 3   2   2024 17   2   2024<br>7   2   2024 21   2   2024                  |
| 3       | Study of Gate End Box.                                                                                                 |       | 1                                                | 28   2   2024                                                             |
| 4       | Study of Relays (Buchholz Relay , Over Current Relay).                                                                 | Mar   | 4                                                | 2   3   2024 13   3   2024 20   3   24<br>6   3   2024 16   3   2024      |
| 5       | Identify the different part of given cable and find fault on the cable.                                                |       | 2                                                | 27   3   2024 30   3   2024                                               |
| 6       | By the use of Megger check the continuity of windings, body to winding, body to earth of an 3-Phase induction Motor.   | Apr   | 5                                                | 3   4   2024 20   4   2024<br>6   4   2024 24   4   2024<br>10   4   2024 |

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-MINING ENGG

SEMESTER: 4TH

SECTION : MNA1

NAME OF THE FACULTY : (1) ER. PRABIN KUMAR SAHOO, (2) ER. CHANDAN SAHOO (LECT. IN MINING ENGG.)

SEMESTER FROM DT. 16.01.2024 TO 26.04.2024

PRACTICAL SUBJECT : TECHNICAL SEMINAR (PR-4)

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 |
|---------|-----------------------------------------------------|--------|--------------------------------------------------|-------------------------------------------|
|         | Explosive used in mines presentation                | Jan    |                                                  | 19/1/2024                                 |
|         | student try to define explosive.                    |        |                                                  | 19/1/2024                                 |
|         | Difference betn pms & sms.                          |        |                                                  | 19/1/2024                                 |
|         | Description of permitted explosive                  | Feb.   |                                                  | 2/2/2024, 9/2/2024                        |
|         | Safety fuse composition.                            |        |                                                  | 16/2/2024                                 |
|         | construction of Safety fuse.                        |        |                                                  | 23/2/2024.                                |
|         | Discussion of Safety fuse.                          | march  |                                                  | 1/3/2024.                                 |
|         | Differentiate betn type of explosives               |        |                                                  | 15/3/2024, 22/3/2024                      |
|         | Circuit tester discussion.                          | April. |                                                  | 5/4/2024, 12/4/2024.                      |
|         | Report Submit                                       |        |                                                  | 19/4/2024, 26/4/2024                      |

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## PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- MINING ENGG.

SEMESTER: 4TH

SECTION : MNA1

NAME OF THE FACULTY : (1) ER. GOBINDA CHANDRA SETHY, (2) ER. ATISH SAHOO (LECT. IN MINING 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/JOB TO BE COVERED | MONTH    | AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS | ACTUAL PROGRESS OF THE COURSES MADE | DATES |
|---------|----------------------------------------------------|----------|--------------------------------------------------|-------------------------------------|-------|
|         | Extension of Lectures.                             | January  |                                                  | 19/1/2024                           |       |
|         | Personality Development.                           |          |                                                  | 19/1/2024                           |       |
|         | Environmental Issues.                              | February |                                                  | 2/2/2024, 9/2/2024                  |       |
|         | Quiz/ tobbles/ field visit.                        |          |                                                  | 3/3/2024, 22/3/2024                 |       |
|         | Cultural Activities                                | March    |                                                  | 22/3/2024.                          |       |
|         | Library Studies/ Seminar                           | April    |                                                  | 12/4/2024, 19/4/2024                |       |

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**PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24**

**BRANCH:-MINING ENGG**

**SEMESTER: 4TH**

**SECTION : MNA2**

**NAME OF THE FACULTY : (1) ER. SUNIL KUMAR SAHU, (2) ER. SIBASUNDAR MAIKAP (LECT. IN MINING ENGG.)**

**SEMESTER FROM DT. 16.01.2024 TO 26.04.2024**

**PRACTICAL SUBJECT : MINE SURVEY - II LAB. (PR-1)**

**CLASS ALLOTTED /WEEK : 06 PERIODS**

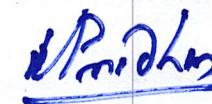
| Sl. No. | NAME OF THE PRACTICAL EXPERIMENT/JOB TO BE COVERED                                                                                           | MONTH | AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS | ACTUAL PROGRESS OF THE COURSES MADE DATES       |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------|-------|--------------------------------------------------|-------------------------------------------------|
| 1       | Fix triangulation and measurement of peripheral and hub angles. Base line measurement applying all corrections and plotting by co-ordinates. | Jan   | 1                                                | 18   1   2024                                   |
| 2       | Determine the north.                                                                                                                         |       | 1                                                | 22   1   2024                                   |
| 3       | Set cut curves by Total Station and Theodolites.                                                                                             |       | 1                                                | 25   1   2024                                   |
| 4       | Correlate underground and surface survey during survey camp.                                                                                 |       | 1                                                | 29   1   2024                                   |
| 5       | Measurement of Horizontal & Vertical angles, measurement of distance by Total Station.                                                       | Feb   | 2                                                | 1   2   2024<br>5   2   2024                    |
| 6       | Mining lease boundary survey using Total Station .                                                                                           |       | 2                                                | 8   2   2024<br>12   2   2024                   |
| 7       | Base line fixation using Total Station.                                                                                                      |       | 2                                                | 15   2   2024<br>19   2   2024                  |
| 8       | Coordinate point shifting and reference point shifting by Total Station                                                                      |       | 3                                                | 22   2   2024<br>26   2   2024<br>29   2   2024 |



| 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 |
|---------|-----------------------------------------------------------------------------------------------------------------------------|-------|--------------------------------------------------|-------------------------------------------|
| 9       | Fixation of control point by 02 traversing (both Horizontal and Vertical control points) with Total Station and auto level. | March | 1                                                | 4   3   2024                              |
| 10      | Topographic survey & existing features.                                                                                     |       | 2                                                | 7   3   2024<br>11   3   2024             |
| 11      | Area calculation using software.                                                                                            |       | 2                                                | 14   3   2024<br>18   3   2024            |
| 12      | Volume calculation using software                                                                                           |       | 2                                                | 21   3   2024<br>28   3   2024            |
| 13      | GPS Survey.                                                                                                                 | April | 1                                                | 4   4   2024                              |
| 14      | Preparation of plan and section using AUTOCAD.                                                                              |       | 2                                                | 8   4   2024<br>15   4   2024             |
| 15      | DGPS Survey.                                                                                                                |       | 2                                                | 18   4   2024<br>22   4   2024            |
| 16      | Reserve calculation of Ore.                                                                                                 |       | 1                                                | 25   4   2024                             |

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**PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24**

**BRANCH:-MINING ENGG**

**SEMESTER: 4TH**

**SECTION : MNA2**

**NAME OF THE FACULTY : (1) ER. PRATYUSHA PRAVANJAN BEHERA, (2) ER. PRATYUSH ROUT (LECT. IN MINING ENGG.)**

**SEMESTER FROM DT. 16.01.2024 TO 26.04.2024**

**PRACTICAL SUBJECT : MINE VENTILATION LAB (PR-2)**

**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       | Determine the relative humidity by stationary hygrometer.                                                                                              | Jan   | 2                                                | 17   1   2024 20   1   2024                                               |
| 2       | Determine the relative humidity by storow's hygrometer.                                                                                                |       | 2                                                | 24   1   2024 31   1   2024                                               |
| 3       | Determine the cooling power of mine air using Kata thermometer.                                                                                        | Feb   | 2                                                | 3   2   2024 7   2   2024                                                 |
| 4       | Study and sketching of air crossing, ventilation doors at pit-top & different types of explosive proof fire stopping.                                  |       | 4                                                | 10   2   2024 21   2   2024<br>17   2   2024 28   2   2024                |
| 5       | Study & use of Vane Anemometer, Digital Anemometer, Velometer, Pitot static-tube measurement of quantity of air flow. Study of digital pressure meter. | Mar   | 5                                                | 4   3   2024 13   3   2024<br>6   3   2024 18   3   2024<br>11   3   2024 |
| 6       | Determination of duct characteristic.                                                                                                                  |       | 2                                                | 20   3   2024 27   3   2024                                               |
| 7       | Study of constructional features of axial flow and centrifugal fans.                                                                                   | Apr   | 2                                                | 1   4   2024<br>3   4   2024                                              |
| 8       | Determination of fan characteristic curve.                                                                                                             |       | 1                                                | 8   4   2024                                                              |
| 9       | Study and sketching of regulator, airlocks.                                                                                                            |       | 2                                                | 10   4   2024 15   4   2024                                               |
| 10      | Study and use of digital anemometer.                                                                                                                   |       | 1                                                | 22   4   2024                                                             |
| 11      | Measurement of quantity of air flow by digital anemometer                                                                                              |       | 1                                                | 24   4   2024                                                             |

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**PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24**

**BRANCH:-MINING ENGG**

**SEMESTER: 4TH**

**SECTION : MNA2**

**NAME OF THE FACULTY : (1) ER. SWAGAT SAHOO, (2) ER. SUSHIL KUMAR MAJHI (LECT. IN ELECT. ENGG.)**

**SEMESTER FROM DT. 16.01.2024 TO 26.04.2024**

**PRACTICAL SUBJECT: ELECTRICAL EQUIPMENT IN MINES LAB (PR-3)**

**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       | Prepare an Electrical switch board to control two light points, one plug point, one fan point and put a required fuse. | Jan   | 3                                                | 16   1   2024 30   1   2024<br>19   1   2024                          |
| 2       | Study of circuit breakers (Air Circuit Breaker & Oil Circuit Breaker).                                                 | Feb   | 4                                                | 2   2   2024 9   2   2024<br>6   2   2024 13   2   2024               |
| 3       | Study of Gate End Box.                                                                                                 |       | 4                                                | 16   2   2024 23   2   2024<br>20   2   2024 27   2   2024            |
| 4       | Study of Relays (Buchholz Relay , Over Current Relay).                                                                 | Mar   | 5                                                | 1   3   2024 15   3   2024 22   3   24<br>12   3   2024 19   3   2024 |
| 5       | Identify the different part of given cable and find fault on the cable.                                                | Apr   | 4                                                | 2   4   2024 9   4   2024<br>5   4   2024 12   4   2024               |
| 6       | By the use of Megger check the continuity of windings, body to winding, body to earth of an 3-Phase induction Motor.   |       | 4                                                | 16   4   2024 23   4   2024<br>19   4   2024 26   4   2024            |

**SIGNATURE OF THE CONCERNED FACULTY**

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**PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24**

**BRANCH:-MINING ENGG**

**SEMESTER: 4TH**

**SECTION : MNA2**

**NAME OF THE FACULTY : (1) ER. PRABIN KUMAR SAHOO, (2) ER. CHANDAN SAHOO (LECT. IN MINING ENGG.)**

**SEMESTER FROM DT. 16.01.2024 TO 26.04.2024**

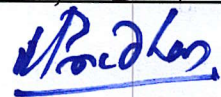
**PRACTICAL SUBJECT : TECHNICAL SEMINAR (PR-4)**

**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  |
|---------|-----------------------------------------------------|--------|--------------------------------------------------|--------------------------------------------|
|         | Explosive used in mines presentation                | Jan    |                                                  | 19/1/2024                                  |
|         | Student try to define explosive                     |        |                                                  | 19/1/2024                                  |
|         | Differentiate betn PMS & SMS                        |        |                                                  | 19/1/2024                                  |
|         | Description of Permitted explosive                  | Feb    |                                                  | 2/2/2024                                   |
|         | Safety fuse Composition                             |        |                                                  | 9/2/2024                                   |
|         | Construction of Safety fuse                         |        |                                                  | 16/2/2024, 23/2/2024                       |
|         | Discussion                                          | March  |                                                  | 1/3/2024                                   |
|         | Different type of exploder                          |        |                                                  | 15/3/2024                                  |
|         | Circuit tester discussion.                          |        |                                                  | 22/3/2024                                  |
|         | Report Submit.                                      | April. |                                                  | 5/4/2024 19/4/2024<br>12/4/2024 26/4/2024. |

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:- MINING ENGG.

SEMESTER: 4TH

SECTION : MNA2

NAME OF THE FACULTY : (1) ER. GOBINDA CHANDRA SETHY, (2) ER. ATISH SAHOO (LECT. IN MINING ENGG.)

SEMESTER FROM DT.16.01.2024 TO 26.04.2024

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 |
|---------|-----------------------------------------------------|----------|--------------------------------------------------|-------------------------------------|-------|
|         | Extension of lectures.                              | January  |                                                  | 19/01/24                            |       |
|         | Personality Development.                            |          |                                                  | 19/01/24                            |       |
|         | Environmental Issues.                               | February |                                                  | 2/02/24 , 9/02/24                   |       |
|         | Quiz/ tobbles/ field visit                          |          |                                                  | 1/03/24 , 22/03/24                  |       |
|         | Cultural Activities                                 | March    |                                                  | 22/03/24                            |       |
|         | Library studies/ Seminar                            | April    |                                                  | 12/04/24 , 19/04/24                 |       |

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## PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-MINING ENGG

SEMESTER: 4TH

SECTION : MNB1

NAME OF THE FACULTY : (1) ER. DILLIP KUMAR DEHURY, (H.O.D., MINING ENGG.), (2) ER. SIBASUNDAR MAIKAP (LECT. IN MINING ENGG.)

SEMESTER FROM DT. 16.01.2024 TO 26.04.2024

PRACTICAL SUBJECT : MINE SURVEY - II LAB. (PR-1)

CLASS ALLOTTED /WEEK : 06 PERIODS

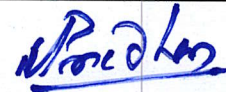
| Sl. No. | NAME OF THE PRACTICAL EXPERIMENT/JOB TO BE COVERED                                                                                           | MONTH | AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS | ACTUAL PROGRESS OF THE COURSES MADE DATES |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------|-------|--------------------------------------------------|-------------------------------------------|
| 1       | Fix triangulation and measurement of peripheral and hub angles. Base line measurement applying all corrections and plotting by co-ordinates. | Jan   | 1                                                | 19/1/2024                                 |
| 2       | Determine the north.                                                                                                                         |       | 1                                                | 20/1/2024                                 |
| 3       | Set out curves by Total Station and Theodolites.                                                                                             | Feb   | 2                                                | 2/2/2024<br>3/2/2024                      |
| 4       | Correlate underground and surface survey during survey camp.                                                                                 |       | 1                                                | 9/2/2024                                  |
| 5       | Measurement of Horizontal & Vertical angles, measurement of distance by Total Station.                                                       |       | 2                                                | 16/2/2024<br>17/2/2024                    |
| 6       | Mining lease boundary survey using Total Station .                                                                                           |       | 1                                                | 23/2/2024                                 |
| 7       | Base line fixation using Total Station.                                                                                                      | March | 2                                                | 1/3/2024<br>2/3/2024                      |
| 8       | Coordinate point shifting and reference point shifting by Total Station                                                                      |       | 1                                                | 15/3/2024                                 |



| 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 |
|---------|-----------------------------------------------------------------------------------------------------------------------------|-------|--------------------------------------------------|-------------------------------------------|
| 9       | Fixation of control point by 02 traversing (both Horizontal and Vertical control points) with Total Station and auto level. |       | 2                                                | 16/ 3/ 2024<br>22/ 3/ 2024                |
| 10      | Topographic survey & existing features.                                                                                     |       | 1                                                | 30/ 3/ 2024                               |
| 11      | Area calculation using software.                                                                                            | April | 1                                                | 5/ 4/ 2024                                |
| 12      | Volume calculation using software                                                                                           |       | 1                                                | 6/ 4/ 2024                                |
| 13      | GPS Survey.                                                                                                                 |       | 1                                                | 12/ 4/ 2024                               |
| 14      | Preparation of plan and section using AUTOCAD.                                                                              |       | 1                                                | 19/ 4/ 2024                               |
| 15      | DGPS Survey.                                                                                                                |       | 1                                                | 20/ 4/ 2024                               |
| 16      | Reserve calculation of Ore.                                                                                                 |       | 1                                                | 26/ 4/ 2024                               |

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**PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24**

**BRANCH:-MINING ENGG**

**SEMESTER: 4TH**

**SECTION : MNB1**

**NAME OF THE FACULTY : (1) ER. PRATYUSH ROUT (LCT. IN MINING ENGG.), (2) ER. TANMAY SAHOO (T.A., MINING ENGG.)**

**SEMESTER FROM DT. 16.01.2024 TO 26.04.2024**

**PRACTICAL SUBJECT : MINE VENTILATION LAB (PR-2)**

**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       | Determine the relative humidity by stationary hygrometer.                                                                                              | Jan   | 3                                                | 17/1/2024<br>22/1/2024 24/1/2024                      |
| 2       | Determine the relative humidity by storow's hygrometer.                                                                                                |       | 2                                                | 29/1/2024<br>31/1/2024                                |
| 3       | Determine the cooling power of mine air using Kata thermometer.                                                                                        | Feb   | 4                                                | 5/2/2024 12/2/2024<br>7/2/2024 19/2/2024              |
| 4       | Study and sketching of air crossing, ventilation doors at pit-top & different types of explosive proof fire stopping.                                  |       | 3                                                | 26/2/2024 28/2/2024<br>26/2/2024                      |
| 5       | Study & use of Vane Anemometer, Digital Anemometer, Velometer, Pitot static-tube measurement of quantity of air flow. Study of digital pressure meter. | March | 5                                                | 4/3/2024 13/3/2024<br>6/3/2024 19/3/2024<br>11/3/2024 |
| 6       | Determination of duct characteristic.                                                                                                                  |       | 2                                                | 20/3/2024 27/3/2024                                   |
| 7       | Study of constructional features of axial flow and centrifugal fans.                                                                                   | April | 3                                                | 1/4/2024 8/4/2024<br>31/4/2024                        |
| 8       | Determination of fan characteristic curve.                                                                                                             |       | 1                                                | 10/4/2024                                             |
| 9       | Study and sketching of regulator, airlocks.                                                                                                            |       | 1                                                | 15/4/2024                                             |
| 10      | Study and use of digital anemometer.                                                                                                                   |       | 1                                                | 22/4/2024                                             |
| 11      | Measurement of quantity of air flow by digital anemometer                                                                                              |       | 1                                                | 29/4/2024                                             |

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**PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24**

**BRANCH:-MINING ENGG**

**SEMESTER: 4TH**

**SECTION : MNB1**

**NAME OF THE FACULTY : (1) ER. SASWAT SAHU (LECT. IN ELECT. ENGG), (2) ER. LILI NAYAK (T.A., ELECT. ENGG.)**

**SEMESTER FROM DT. 16.01.2024 TO 26.04.2024**

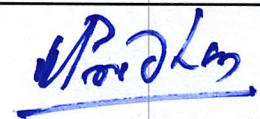
**PRACTICAL SUBJECT: ELECTRICAL EQUIPMENT IN MINES LAB (PR-3)**

**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       | Prepare an Electrical switch board to control two light points, one plug point, one fan point and put a required fuse. | Jan   | 4                                                | 16/11/2024 25/11/2024<br>18/11/2024 30/11/2024    |
| 2       | Study of circuit breakers (Air Circuit Breaker & Oil Circuit Breaker).                                                 | Feb   | 5                                                | 1/2/2024 8/2/2024<br>6/2/2024 13/2/2024 15/2/2024 |
| 3       | Study of Gate End Box.                                                                                                 |       | 4                                                | 20/2/2024 27/2/2024<br>22/2/2024 29/2/2024        |
| 4       | Study of Relays (Buchholz Relay , Over Current Relay).                                                                 | March | 6                                                | 7/3/24 14/3/24 21/3/24<br>12/3/24 19/3/24 28/3/24 |
| 5       | Identify the different part of given cable and find fault on the cable.                                                | April | 4                                                | 21/4/2024 9/4/2024<br>4/4/2024 16/4/2024          |
| 6       | By the use of Megger check the continuity of windings, body to winding, body to earth of an 3-Phase induction Motor.   |       | 3                                                | 18/4/2024 25/4/2024<br>23/4/2024                  |

  
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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-MINING ENGG

SEMESTER: 4TH

SECTION : MNB1

NAME OF THE FACULTY : (1) ER. CHANDAN SAHOO, (2) ER. PRABIN KUMAR SAHOO (LECT. IN MINING ENGG.)

SEMESTER FROM DT. 16.01.2024 TO 26.04.2024

PRACTICAL SUBJECT : TECHNICAL SEMINAR (PR-4)

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 |
|---------|-----------------------------------------------------|--------|--------------------------------------------------|-------------------------------------------|
|         | Ventilation in U/G mine                             | Jan.   |                                                  | 19/1/2024                                 |
|         | Ventilation system in mine                          |        |                                                  | 19/1/2024                                 |
|         | power point presentation                            |        |                                                  | 19/1/2024                                 |
|         | Instruments for ventilation                         | Feb    |                                                  | 2/2/2024, 9/2/2024                        |
|         | Air crossing                                        |        |                                                  | 16/2/2024                                 |
|         | Fans                                                |        |                                                  | 23/2/2024.                                |
|         | Survey of ventilation                               | March  |                                                  | 1/3/2024.                                 |
|         | Leakage of air                                      |        |                                                  | 15/3/2024, 22/3/2024                      |
|         | Prevention                                          | April. |                                                  | 5/4/2024, 12/4/2024                       |
|         | Report Submit.                                      |        |                                                  | 19/4/2024, 26/4/2024.                     |

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## PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:- MINING ENGG.

SEMESTER: 4TH

SECTION : MNB1

NAME OF THE FACULTY : (1) ER. ATISH SAHOO, (2) ER. GOBINDA CHANDRA SETHY (LECT. IN MINING ENGG.)

SEMESTER FROM DT.16.01.2024 TO 26.04.2024

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 |
|---------|-----------------------------------------------------|-------|--------------------------------------------------|-------------------------------------|-------|
|         | Extension of lectures.                              | Jan   |                                                  | 19/01/2024                          |       |
|         | Personality Development.                            |       |                                                  | 19/01/2024                          |       |
|         | Environmental Issues.                               | Feb   |                                                  | 2/02/24, 09/02/24                   |       |
|         | Quiz / tobbles / Field visit                        |       |                                                  | 11/03/24, 22/03/24                  |       |
|         | Cultural Activities                                 | March |                                                  | 22/03/24                            |       |
|         | Library Studies / Seminar                           | April |                                                  | 12/04/24, 19/04/24                  |       |

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**PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24**

**BRANCH:-MINING ENGG**

**SEMESTER: 4TH**

**SECTION : MNB2**

**NAME OF THE FACULTY : (1) ER. SUNIL KUMAR SAHU, (2) ER. PRABIN KUMAR SAHOO (LECT. IN MINING ENGG.)**

**SEMESTER FROM DT. 16.01.2024 TO 26.04.2024**

**PRACTICAL SUBJECT : MINE SURVEY - II LAB. (PR-1)**

**CLASS ALLOTTED /WEEK : 06 PERIODS**

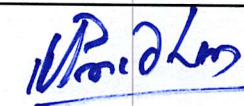
| Sl. No. | NAME OF THE PRACTICAL EXPERIMENT/JOB'S TO BE COVERED                                                                                         | MONTH | AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS | ACTUAL PROGRESS OF THE COURSES MADE DATES |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------|-------|--------------------------------------------------|-------------------------------------------|
| 1       | Fix triangulation and measurement of peripheral and hub angles. Base line measurement applying all corrections and plotting by co-ordinates. | Jan   | 1                                                | 19 / 1 / 2024                             |
| 2       | Determine the north.                                                                                                                         |       | 1                                                | 20 / 1 / 24                               |
| 3       | Set cut curves by Total Station and Theodolites.                                                                                             | Feb   | 1                                                | 2 / 2 / 2024                              |
| 4       | Correlate underground and surface survey during survey camp.                                                                                 |       | 1                                                | 3 / 2 / 2024                              |
| 5       | Measurement of Horizontal & Vertical angles, measurement of distance by Total Station.                                                       |       | 2                                                | 9 / 2 / 2024<br>16 / 2 / 2024             |
| 6       | Mining lease boundary survey using Total Station .                                                                                           |       | 2                                                | 17 / 2 / 2024<br>23 / 2 / 2024            |
| 7       | Base line fixation using Total Station.                                                                                                      | March | 2                                                | 1 / 3 / 2024<br>2 / 3 / 2024              |
| 8       | Coordinate point shifting and reference point shifting by Total Station                                                                      |       | 1                                                | 15 / 3 / 2024                             |



| 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 |
|---------|-----------------------------------------------------------------------------------------------------------------------------|-------|--------------------------------------------------|-------------------------------------------|
| 9       | Fixation of control point by 02 traversing (both Horizontal and Vertical control points) with Total Station and auto level. |       | 1                                                | 16 / 03 / 24                              |
| 10      | Topographic survey & existing features.                                                                                     |       | 1                                                | 22 / 3 / 2024                             |
| 11      | Area calculation using software.                                                                                            |       | 1                                                | 30 / 3 / 2024                             |
| 12      | Volume calculation using software                                                                                           | April | 1                                                | 5 / 4 / 2024                              |
| 13      | GPS Survey.                                                                                                                 |       | 1                                                | 6 / 4 / 2024                              |
| 14      | Preparation of plan and section using AUTOCAD.                                                                              |       | 2                                                | 12 / 4 / 2024<br>19 / 4 / 2024            |
| 15      | DGPS Survey.                                                                                                                |       | 1                                                | 20 / 4 / 2024                             |
| 16      | Reserve calculation of Ore.                                                                                                 |       | 1                                                | 26 / 4 / 2024                             |

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**PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24**

**BRANCH:-MINING ENGG**

**SEMESTER: 4TH**

**SECTION : MNB2**

**NAME OF THE FACULTY : (1) ER. PRATYUSHA PRAVANJAN BEHERA, (2) ER. TANMAY KUMAR SAHOO (LECT. IN MINING ENGG.)**

**SEMESTER FROM DT. 16.01.2024 TO 26.04.2024**

**PRACTICAL SUBJECT : MINE VENTILATION LAB (PR-2)**

**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       | Determine the relative humidity by stationary hygrometer.                                                                                              | Jan   | 4                                                | 16/1/2024 25/1/2024<br>18/1/2024 30/1/2024           |
| 2       | Determine the relative humidity by storow's hygrometer.                                                                                                | Feb   | 4                                                | 1/2/2024 8/2/2024<br>6/2/2024 13/2/2024              |
| 3       | Determine the cooling power of mine air using Kata thermometer.                                                                                        |       | 5                                                | 15/2/2024 22/2/2024 29/2/2024<br>20/2/2024 27/2/2024 |
| 4       | Study and sketching of air crossing, ventilation doors at pit-top & different types of explosive proof fire stopping.                                  | March | 3                                                | 7/3/2024 14/3/2024<br>12/3/2024                      |
| 5       | Study & use of Vane Anemometer, Digital Anemometer, Velometer, Pitot static-tube measurement of quantity of air flow. Study of digital pressure meter. |       | 3                                                | 19/3/2024 28/3/2024<br>21/3/2024                     |
| 6       | Determination of duct characteristic.                                                                                                                  | April | 1                                                | 2/4/2024                                             |
| 7       | Study of constructional features of axial flow and centrifugal fans.                                                                                   |       | 2                                                | 4/4/2024 9/4/2024                                    |
| 8       | Determination of fan characteristic curve.                                                                                                             |       | 1                                                | 16/4/2024                                            |
| 9       | Study and sketching of regulator, airlocks.                                                                                                            |       | 1                                                | 18/4/2024                                            |
| 10      | Study and use of digital anemometer.                                                                                                                   |       | 1                                                | 23/4/2024                                            |
| 11      | Measurement of quantity of air flow by digital anemometer                                                                                              |       | 1                                                | 25/4/2024                                            |

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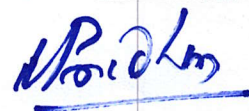
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|-------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------|
| PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24                                                                         |                                                                                                                        |                                                             |                                                  |                                                     |
| BRANCH:-MINING ENGG                                                                                                     |                                                                                                                        | SEMESTER: 4TH                                               |                                                  | SECTION : MNB2                                      |
| NAME OF THE FACULTY : (1) ER. PRADYUMNA GARNAYAK (LECT. IN ELECT. ENGG.), (2) ER. KRUTIBASA BEHERA (T.A., ELECT. ENGG.) |                                                                                                                        |                                                             |                                                  |                                                     |
| SEMESTER FROM DT. 16.01.2024 TO 26.04.2024                                                                              |                                                                                                                        | PRACTICAL SUBJECT: ELECTRICAL EQUIPMENT IN MINES LAB (PR-3) |                                                  |                                                     |
| CLASS ALLOTTED /WEEK : 06 PERIODS                                                                                       |                                                                                                                        |                                                             |                                                  |                                                     |
| SI. 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                                                                                                                       | Prepare an Electrical switch board to control two light points, one plug point, one fan point and put a required fuse. | Jan                                                         | 5                                                | 17/11/2024 29/11/24 31/11/24<br>22/11/2024 29/11/24 |
| 2                                                                                                                       | Study of circuit breakers (Air Circuit Breaker & Oil Circuit Breaker).                                                 | Feb                                                         | 5                                                | 5/2/24 12/2/24 21/2/24<br>7/2/24 19/2/24            |
| 3                                                                                                                       | Study of Gate End Box.                                                                                                 |                                                             | 2                                                | 26/2/24 28/2/24                                     |
| 4                                                                                                                       | Study of Relays (Buchholz Relay , Over Current Relay).                                                                 | March                                                       | 5                                                | 4/3/2024 11/3/2024 18/3/24<br>6/3/2024 13/3/2024    |
| 5                                                                                                                       | Identify the different part of given cable and find fault on the cable.                                                |                                                             | 3                                                | 20/3/2024 27/3/2024                                 |
| 6                                                                                                                       | By the use of Megger check the continuity of windings, body to winding, body to earth of an 3-Phase induction Motor.   | April                                                       | 6                                                | 3/4/24 10/4/24 22/4/24<br>8/4/24 15/4/24 24/4/24    |

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-MINING ENGG

SEMESTER: 4TH

SECTION : MNB2

NAME OF THE FACULTY : (1) ER. CHANDAN SAHOO (LECT. IN MINING ENGG.)

SEMESTER FROM DT. 16.01.2024 TO 26.04.2024

PRACTICAL SUBJECT : TECHNICAL SEMINAR (PR-4)

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 |
|---------|-----------------------------------------------------|--------|--------------------------------------------------|-------------------------------------------|
|         | Ventilation in u/g mine                             | Jan.   |                                                  | 19/1/2024                                 |
|         | ventilation system.                                 |        |                                                  | 19/1/2024                                 |
|         | Power Point Presentation.                           |        |                                                  | 19/1/2024                                 |
|         | Instrements for Ventilation.                        | Feb    |                                                  | 2/2/2024, 9/2/2024                        |
|         | Aircrossings.                                       |        |                                                  | 16/2/2024                                 |
|         | Fans for Ventilation.                               |        |                                                  | 23/2/2024.                                |
|         | Survey of Ventilation.                              | March  |                                                  | 1/3/2024                                  |
|         | Leakage of Air.                                     |        |                                                  | 15/3/2024. 22/3/2024                      |
|         | Prevention of leakage of Air                        | April. |                                                  | 5/4/2024, 12/4/2024                       |
|         | Report Submit.                                      |        |                                                  | 19/4/2024, 26/4/2024                      |

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

## PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:- MINING ENGG.

SEMESTER: 4TH

SECTION : MNB2

NAME OF THE FACULTY : (1) ER. ATISH SAHOO, (2) ER. GOBINDA CHANDRA SETHY (LECT. IN MINING ENGG.)

SEMESTER FROM DT.16.01.2024 TO 26.04.2024

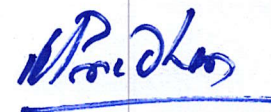
PRACTICAL SUBJECT: STUDENT CENTRED ACTIVITIES

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 | THE DATES |
|---------|-----------------------------------------------------|----------|--------------------------------------------------|-------------------------------------|-----------|
|         | Extension of lectures.                              | January  |                                                  | 19/01/24                            |           |
|         | Personality Development                             |          |                                                  | 19/01/24                            |           |
|         | Environmental Studies.                              | February |                                                  | 2/02/24 , 9/02/24                   |           |
|         | Quiz/ tobbles/ Field visit                          |          |                                                  | 1/03/24 , 22/03/24                  |           |
|         | Cultural Activities                                 | March    |                                                  | 22/03/24                            |           |
|         | Library studies/ Seminar                            | April    |                                                  | 12/04/24 , 19/04/24                 |           |

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