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

THEORY LESSON PLAN FOR THE SESSION 2021-22

BRANCH : MINING ENGINEERING, SEMESTER : 6TH, SECTION :- MNA

NAME OF THE FACULTY : (1) ER. DILLIP KU. DEHURY
(2) ER. PRABIN KU. SAHOO (LECT. IN MINING ENGG.)

SEMESTER FROM : 14.03.2022 to 30.06.2022

THEORY SUBJECT: MINE MACHINERY - II (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	**Underground Face Machineries**	**15**	March	D1
	Electric coal drill	2		D1 - 14.3.22 D1 - 15.3.22
	Describe constructional features, operation, principle & use of electric coal drill	3		D1 - 16.3.22 D1 - 17.3.22
	State types of drill rods & drill bits used in electric coal drill	3		D1 - 21.3.22 D1. 22.3.22
	Describe basic constructional features of gathering arm loader, scraper loader, side discharge loader & load & haul loader	3		D1 - 23.3.22 D1 - 24.3.22
	Describe basic constructional features & operation principle of jackhammer drill & air leg rock drill	2		D1 . 28.3.22 D1 - 29.3.22
	Describe basic constructional features & operation principle of road header & Shearer loader	2		D1 - 30.3.22 D1 - 31.3.22
2	**Opencast Machineries**	**15**	APRIL	
	Describe basic constructional features of surface miner, dragline, shovel & backhoe, bucket wheel excavator	8		D1 - 4.4.22 D1 - 5.4.22, D1 - 6.4.22, D1 - 7.4.22
	Describe basic constructional features of dumper, dozer, scraper & road grader	7		D1 - 11.4.22, D1 - 12.4.22 D1 - 13.4.22, D1 - 18.4.22

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
3	**Mine Pumps**	20		
	Classify mine pumps	1		Dt - 19.4.22
	Describe constructional features, working & use of ram pumps	2		Dt - 20.4.22
	Centrifugal & turbine pumps	2		Dt - 21.4.22 , Dt - 25.4.22
	Describe constructional features of centrifugal & turbine pumps.	2		Dt - 26.4.22 , Dt . 27.4.22 Dt - 28.4.22
	State principle of centrifugal & turbine pumps & its applicability.	2	MAY	Dt - 2.5.22, Dt - 4.5 22
	Explain balancing the axial thrust of turbine pump	2		Dt - 5.5.22, Dt - 9.5.22
	Draw characteristic curves for turbine pumps	2		Dt - 10.5.22, Dt - 11.5.22
	Solve numerical problems on centrifugal & turbine pumps	2		Dt . 12.5.22, Dt - 17.5.22
	Describe constructional features and working principle & use of roto pump	2		Dt . 18.5.22 . Dt .19.5.22
	Describe constructional features & working principle of sinking pump	2		Dt - 23.5.22, Dt - 25.5.22 Dt - 26.5.22
	State procedure of suspension in shaft	1		Dt - 30.5.22, Dt - 31.5.22
4	**Bore Hole Pump**	5	JUNE	
	Describe constructional features & working of bore hole pump	3		Dt - 1.6.22, Dt - 2.6.22, Dt - 6.6.22 Dt - 7.6.22, Dt - 8.6.22
	State installation of bore hole pump	2		Dt - 9.6.22, Dt - 13.6.22 Dt - 16.6.22 , Dt - 20.6.22

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
5	Pipes and Valves	5		
	State types of pipe & valves used in Mines	1		Dt - 21.6.22 , Dt - 22.6.22
	Describe constructional features of various type of valves	1		Dt - 23.6.22
	State & describe different types of pipe joints	1		Dt - 27.6.22
	Describe support of laying main pipe in shaft.	1		Dt - 28.6.22
	Discuss the Pipe line layout	1		Dt - 29.6.22 , Dt - 30.6.22

SIGNATURE OF THE CONCERNED FACULTY

SIGNATURE OF THE H.O.D.

30/06/2022

PRINCIPAL
P.C.I.E.T., CHHENDIPADA

PRINCIPAL
Purna Chandra Institute of
Engineering & Technology
CHHENDIPADA, ANGUL

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

THEORY LESSON PLAN FOR THE SESSION 2021-22

BRANCH : MINING ENGINEERING, SEMESTER : 6TH, SECTION : MNA

NAME OF THE FACULTY : (1) ER. SRIKANTA SAMAL, (2) ER. DURGA PRASAD SAHU, (3) ER. ATISH SAHOO, (LECT. IN MINING ENGG.)

SEMESTER FROM : 14.03.2022 to 30.06.2022

THEORY SUBJECT: MINE GEOLOGY - 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	**Stratigraphy**	12	March	Dt-14.3.22, Dt-15.3.22, Dt-16.3.22
	Principles of stratigraphy	4		Dt-17.3.22
	Geological time Scale	4		Dt-21.3.22, Dt-22.3.22, Dt-23.3.22
	Stratigraphic sequence, lithology, distribution & economic mineral deposits of Iron Ore series, Cuddpah Supergroup, Vindhyan super group & gondwana super group	4		Dt-24.3.22, Dt-28.3.22 Dt-29.3.22, Dt-30.3.22
2	**Fossil Fuels**	12	April	
	Coal Describe the different ranks of coal. Describe different grades of coal like A,B,C,D. Describe the various theories accounting for the origin of coal. Describe various important lower gondwana Coalfields of India.	6		Dt-31.3.22, Dt-4.4.22 Dt-5.4.22, Dt-6.4.22 Dt-7.4.22, Dt-11.4.22
	Petroleum Describe the organic & inorganic theories accounting for the origin of petroleum. Define oil pool & oil trap. Describe process of accumulation of oil. Describe favorable conditions for accumulation of oil. Describe different important oil fields in India.	6		Dt-12.4.22, Dt-13.4.22 Dt-18.4.22, Dt-19.4.22 Dt-20.4.22

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
3	**Prospecting & Exploration**	12	May	
	Define prospecting	1		Dt-21.4.22
	Differentiate between prospecting & exploration	1		Dt-25.4.22
	Use of multi shot camera for borehole direction test	2		Dt-26.4.22 , Dt-27.4.22
	Enumerate & describe various criteria for geological exploration	2		Dt-28.4.22, Dt-2.5.22
	Various methods of Geophysical prospecting	2		Dt-4.5.22, Dt-5.5.22
	Geochemical prospecting	2		Dt-9.5.22, Dt-10.5.22
	Differentiate between biogeochemical & geo botanical prospecting	2		Dt-11.5.22, Dt-12,5.22
4	**Economic Geology**	12		
	Economic Geology	1		Dt-17.5.22
	Define tenor & grade	1		Dt-18.5.22
	Mineralogy, mode of occurrence, distribution & use of iron ore deposits in India	2		Dt-19.5.22, Dt-23.5.22
	Mineralogy, mode of occurrence, & description of Chromites deposits in India & its uses	2		Dt-25.5.22, Dt-26.5.22
	Mineralogy, mode of occurrence & distribution of copper deposits in India & uses of this metal	2	June	Dt-1.6.22, Dt-2.6.22
	Mineralogy, mode of occurrence, distribution of lead & zinc deposits in India & the uses of these metals	2		Dt-6.6.22, Dt-7.6.22
	UNFC (United Nation Framework of Classification) code of classification of reserves	2		Dt-8.6.22, Dt-9.6.22

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
5	**Sampling**	12		
	Sampling, outline the method of preparation of samples for assay	4		Dt-13.6.22, Dt-16.6.22 Dt-20.6.22
	Sampling	4		Dt-21.6.22, Dt-22.6.22 Dt-23.6.22
	Different methods of sampling as outlined by Bureau of Indian Standards. (BIS)	4		Dt-27.6.22, Dt-28.6.22 Dt-29.6.22, Dt-30.6.22

SIGNATURE OF THE CONCERNED FACULTY

SIGNATURE OF THE H.O.D.

30/06/2022

PRINCIPAL
P.C.I.E.T., CHHENDIPADA

PRINCIPAL
Purna Chandra Institute of
Engineering & Technology
CHHENDIPADA, ANGUL

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

THEORY LESSON PLAN FOR THE SESSION 2021-22

BRANCH : MINING ENGINEERING, SEMESTER : 6TH, SECTION : MNA

NAME OF THE FACULTY : (1) ER. SUNIL KUMAR SAHU, (2) ER. GOBINDA CH. SETHY, (3) ER. UDAYA BISWANATH PRADHAN, (LECT. IN MINING ENGG.)

SEMESTER FROM : 14.03.2022 to 30.06.2022

THEORY SUBJECT: MINE LEGISLATION & GENERAL SAFETY - II (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	**Metalliferous Mines Regulations 1961**	15	MARCH	
	Various provisions of Metalliferous Mines Regulations 1961.	15		Dt - 14.3.22, Dt - 15.3.22, Dt - 16.3.22 Dt - 17.3.22, Dt - 21.3.22, Dt - 22.3.22 Dt - 23.3.22, Dt - 24.3.22 Dt - 28.3.22, Dt - 29.3.22 Dt - 30.3.22, Dt - 31.3.22
2	**Mines V.T. Rules 1966**	4	APRIL	
	Various provisions of Mines V.T. Rules 1966	4		Dt - 4.4.22, Dt - 5.4.22 Dt - 6.4.22; Dt - 7.4.22
3	**Mines Creche Rules 1966**	4		
	Various provisions of Mines Creche Rules 1966.	4		Dt - 11.4.22, Dt - 12.4.22 Dt - 13.4.22, Dt - 18.4.22

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
4	**Maternity Benefit Act**	4		
	Various provisions of Maternity Benefit Act.	4		Dt - 19.4.22, Dt - 20.4.22 Dt - 21.4.22, Dt - 25.4.22
5	**Mines Accident & Safety**	15		
	Discuss their classification, causes & prevention	1		Dt - 26.4.22
	Develop concept about accident cost, accident report, procedure for conducting an enquiry to ascertain the causes of accidents	2		Dt - 27.4.22 Dt - 28.4.22
	Discuss procedure for investigation & reporting Mine accident, accident proneness, fatality rate, frequency rate & severity rate	2	MAY	Dt - 2.5.22 Dt - 4.5.22
	Explain role of supervision in accident prevention, accident due to opencast workings, statistical analysis of accidents, accident statistics, its head & method of data processing	2		Dt - 5.5.22 Dt - 9.5.22
	Develop basis concepts of safety, safety & productivity, safety consciousness & safety campaign, safety organization, safety audit	2		Dt - 10.5.22 Dt - 11.5.22
	Describe rules of safety committee	2		Dt - 12.5.22 Dt - 17.5.22
	Explain the role of workmen inspectors	2		Dt - 18.5.22 Dt - 19.5.22
	Discuss terms like industrial fatigue, preventive maintenance, productive equipments & duties of Safety Officer	2		Dt - 23.5.22 Dt - 25.5.22 , Dt - 26.5.22

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
6	**Forest Conservation Act (FCA) 1980.**	3	JUNE	
	Various provisions of Forest Conservation Act (FCA) 1980	3		Dt - 1.6.22, Dt - 2.6.22 Dt - 6.6.22
7	**Environmental Protection Act 1986**	5		
	various provisions of Environmental Protection Act 1986.	5		Dt - 7.6.22, Dt - 8.6.22 Dt - 9.6.22, Dt - 13.6.22
8	**MMRD Act & MCR Rules**	5		
	Various provisions of Mineral conservation & exploitation	3		Dt - 16.6.22, Dt - 20.6.22 Dt - 21.6.22
	National Mineral policy	2		Dt - 22.6.22 Dt - 23.6.22
9	**Classified Circulars (DGMS)**	5		
	As amended up-to-date	5		Dt - 27.6.22, Dt - 28.6.22 Dt - 29.6.22, Dt - 30.6.22

Govind Signature

SIGNATURE OF THE CONCERNED FACULTY

SIGNATURE OF THE H.O.D.

30/06/2022

PRINCIPAL

P.C.I.E.T. CHHENDIPADA

PRINCIPAL

Puma Chandra Institute of Engineering & Technology CHHENDIPADA, ANGUL

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

THEORY LESSON PLAN FOR THE SESSION 2021-22

BRANCH : MINING ENGINEERING, SEMESTER : 6TH,
SECTION : MNA

NAME OF THE FACULTY : (1) ER. RADHAKRUSHNA BHUTIA
(2) ER. LIPUN DEHURY, (3) ER. AMARENDRA SAHOO
(LECT. IN MINING ENGG.)

SEMESTER FROM : 14.03.2022 to 30.06.2022

THEORY SUBJECT: MINERAL DRESSING (TH-4A)

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	2	March	Dt- 14·3·22, Dt- 15·3·22
	Objective & scope of application of mineral dressing in surface & u/g mines	2		
2	**Unit Operations**	6		Dt- 16·3·22, Dt- 17·3·22 Dt- 21·3·22, Dt- 22·3·22 Dt- 23·3·22
	Principle of Blake & dodge jaw crushers, gyratory & cone crushers, roll crusher	6		
3	**Grinding**	6		Dt- 24·3·22, Dt- 28·3·22 Dt- 29·3·22, Dt- 30·3·22 Dt- 31·3·22, Dt- 4·4·22
	Principle of ball mill operation, open circuit grinding, close circuit grinding, dry & wet grinding	6		
4	**Explain the Procedure for Size Analysis & Use of Standard Screen as also Screening Techniques Employed**	6	April	Dt- 5·4·22, Dt- 6·4·22 Dt- 7·4·22, Dt- 11·4·22 Dt- 12·4·22
5	**Industrial Screening**	6		Dt- 13·4·22, Dt- 18·4·22 Dt- 19·4·22
	Explain the principle of industrial screening, type of screening (without calculation)	3		
	Explain the operation of classifier & their application	3		Dt- 20·4·22, Dt- 21·4·22 Dt- 25·4·22

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
6	**Gravity Concentration**	6		
	Explain the general principles of wilfly table & its operation	3		Dt-26.4.22, Dt-27.4.22 Dt-28.4.22
	Develop elementary idea regarding the operation jigs	3	May	Dt-2.5.22, Dt-4.5.22 Dt-5.5.22
7	**Heavy Media Separation**	8		
	Explain the fundamental principle of heavy media separation – Chance process	8		Dt-9.5.22, Dt-10.5.22, Dt-11.5.22 Dt-12.5.22, Dt-17.5.22, Dt-18.5.22 Dt-19.5.22, Dt-23.5.22, Dt-25.5.22
8	**Floatation**	10	June	
	Comprehend elementary principle of froth floatation, practical utility of frother, collection, modifiers & depressants	5		Dt-26.5.22, Dt-1.6.22 Dt-2.6.22, Dt-6.6.22
	Describe & illustrate floatation cell	5		Dt-7.6.22, Dt-8.6.22 Dt-9.6.22, Dt-13.6.22
9	**Magnetic & Electrostatic Separators**	10		
	Explain the principle of operation of magnetic & electrostatic separators	5		Dt-16.6.22, Dt-20.6.22 Dt-21.6.22, Dt-22.6.22
	Describe the application of separators in mineral dressing	5		Dt-23.6.22, Dt-27.6.22 Dt-28.6.22, Dt-29.6.22 Dt-30.6.22

SIGNATURE OF THE CONCERNED FACULTY

SIGNATURE OF THE H.O.D.

30/06/2022

PRINCIPAL

P.C.E.T., CHHENDIPADA

PRINCIPAL
Purna Chandra Institute of
Engineering & Technology
CHHENDIPADA, ANGUL

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

THEORY LESSON PLAN FOR THE SESSION 2021-22

BRANCH : MINING ENGINEERING, SEMESTER : 6TH, SECTION :- MNE

NAME OF THE FACULTY : (1) ER. DILLIP KU. DEHURY
(2) ER. PRABIN KU. SAHOO (LECT. IN MINING ENGG.)

SEMESTER FROM : 14.03.2022 to 30.06.2022

THEORY SUBJECT: MINE MACHINERY - II (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	**Underground Face Machineries**	**15**	MARCH	
	Electric coal drill	2		Dt - 14.3.22 Dt - 15.3.22
	Describe constructional features, operation, principle & use of electric coal drill	3		Dt - 16.3.22 Dt - 17.3.22
	State types of drill rods & drill bits used in electric coal drill	3		Dt - 21.3.22 Dt - 22.3.22
	Describe basic constructional features of gathering arm loader, scraper loader, side discharge loader & load & haul loader	3		Dt - 23.3.22 Dt - 24.3.22
	Describe basic constructional features & operation principle of jackhammer drill & air leg rock drill	2		Dt - 28.3.22 Dt - 29.3.22
	Describe basic constructional features & operation principle of road header & Shearer loader	2		Dt - 30.3.22 Dt - 31.3.22
2	**Opencast Machineries**	**15**	APRIL	
	Describe basic constructional features of surface miner, dragline, shovel & backhoe, bucket wheel excavator	8		Dt - 4.4.22, Dt - 5.4.22, Dt - 6.4.22 Dt - 7.4.22, Dt - 11.4.22
	Describe basic constructional features of dumper, dozer, scraper & road grader	7		Dt - 12.4.22, Dt - 18.4.22 Dt - 19.4.22, Dt - 20.4.22 Dt - 21.4.22

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
3	**Mine Pumps**	20		
	Classify mine pumps	1		Dt. 25.4.22
	Describe constructional features, working & use of ram pumps	2		Dt - 26.4.22
	Centrifugal & turbine pumps	2		Dt - 27.4.22, Dt - 28.4.22
	Describe constructional features of centrifugal & turbine pumps.	2	MAY	Dt - 2.5.22, Dt - 4.5.22 Dt - 5.5.22
	State principle of centrifugal & turbine pumps & its applicability.	2		Dt - 9.5.22, Dt - 10.5.22
	Explain balancing the axial thrust of turbine pump	2		Dt - 11.5.22, Dt - 12.5.22
	Draw characteristic curves for turbine pumps	2		Dt - 17.5.22, Dt - 18.5.22 Dt - 19.5.22
	Solve numerical problems on centrifugal & turbine pumps	2		Dt - 23.5.22
	Describe constructional features and working principle & use of roto pump	2		Dt - 25.5.22 Dt - 26.5.22
	Describe constructional features & working principle of sinking pump	2	JUNE	Dt - 1.6.22, Dt - 2.6.22
	State procedure of suspension in shaft	1		Dt - 6.6.22
4	**Bore Hole Pump**	5		
	Describe constructional features & working of bore hole pump	3		Dt - 7.6.22, Dt - 8.6.22 Dt - 9.6.22
	State installation of bore hole pump	2		Dt - 13.6.22, Dt - 16.6.22

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
5	**Pipes and Valves**	5		
	State types of pipe & valves used in Mines	1		Dt - 20.6.22 Dt - 21.6.22
	Describe constructional features of various type of valves	1		Dt - 22.6.22 Dt - 23.6.22
	State & describe different types of pipe joints.	1		Dt - 27.6.22 Dt . 28.6.22
	Describe support of laying main pipe in shaft.	1		Dt - 29.6.22
	Discuss the Pipe line layout	1		Dt - 30.6.22

SIGNATURE OF THE CONCERNED FACULTY

SIGNATURE OF THE H.O.D.

30/06/2022

PRINCIPAL

P.C.I.E.T., CHHENDIPADA

PRINCIPAL
Parma Chandra Institute of Engineering & Technology
CHHENDIPADA, ANGUL

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

THEORY LESSON PLAN FOR THE SESSION 2021-22

BRANCH : MINING ENGINEERING, SEMESTER : 6TH,
SECTION : MNB

NAME OF THE FACULTY : (1) ER. SRIKANTA SAMAL, (2) ER. DURGA PRASAD SAHU, (3) ER. ATISH SAHOO, (LECT. IN MINING ENGG.)

SEMESTER FROM : 14.03.2022 to 30.06.2022

THEORY SUBJECT: MINE GEOLOGY - 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	**Stratigraphy**	12	March	
	Principles of stratigraphy	4		Dt-14.3.22, Dt-15.3.22, Dt-16.3.22 Dt-17.3.22
	Geological time Scale	4		Dt-21.3.22, Dt-22.3.22 Dt-23.3.22
	Stratigraphic sequence, lithology, distribution & economic mineral deposits of Iron Ore series, Cuddpah Supergroup, Vindhyan super group & gondwana super group	4		Dt-24.3.22, Dt-28.3.22 Dt-29.3.22, Dt-30.3.22
2	**Fossil Fuels**	12	April	
	Coal Describe the different ranks of coal. Describe different grades of coal like A,B,C,D. Describe the various theories accounting for the origin of coal. Describe various important lower gondwana Coalfields of India.	6		Dt-31.3.22, Dt-4.4.22 Dt-5.4.22, Dt-6.4.22 Dt-7.4.22, Dt-11.4.22
	Petroleum Describe the organic & inorganic theories accounting for the origin of petroleum. Define oil pool & oil trap. □ Describe process of accumulation of oil. Describe favorable conditions for accumulation of oil. □ Describe different important oil fields in India.	6		Dt-12.4.22, Dt-13.4.22 Dt-18.4.22, Dt-19.4.22 Dt-20.4.22

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Prospecting & Exploration	12		
3	Define prospecting	1		Dt - 21.4.22
	Differentiate between prospecting & exploration	1		Dt - 25.4.22
	Use of multi shot camera for borehole direction test	2		Dt - 26.4.22 , Dt - 27.4.22
	Enumerate & describe various criteria for geological exploration	2	May	Dt - 28.4.22 , Dt - 4.5.22
	Various methods of Geophysical prospecting	2		Dt - 5.5.22 , Dt - 9.5.22
	Geochemical prospecting	2		Dt - 10.5.22 , Dt - 11.5.22
	Differentiate between biogeochemical & geo botanical prospecting	2		Dt - 12.5.22 , Dt - 17.5.22
	Economic Geology	12		
4	Economic Geology	1		Dt - 18.5.22,
	Define tenor & grade	1		Dt - 19.5.22
	Mineralogy, mode of occurrence, distribution & use of iron ore deposits in India	2		Dt - 23.5.22 , Dt - 25.5.22
	Mineralogy, mode of occurrence, & description of Chromites deposits in India & its uses	2		Dt - 26.5.22 , Dt - 30.5.22
	Mineralogy, mode of occurrence & distribution of copper deposits in India & uses of this metal	2	June	Dt - 31.5.22 , Dt - 1.6.22
	Mineralogy, mode of occurrence, distribution of lead & zinc deposits in India & the uses of these metals	2		Dt - 2.6.22, Dt - 6.6.22
	UNFC (United Nation Framework of Classification) code of classification of reserves	2		Dt - 7.6.22 , Dt - 8.6.22

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
5	**Sampling**	12		
	Sampling, outline the method of preparation of samples for assay	4		Dt-9.6.22, Dt-13.6.22 Dt-16.6.22
	Sampling	4		Dt- 20.6.22, Dt-21.6.22 Dt- 22.6.22, Dt-23.6.22
	Different methods of sampling as outlined by Bureau of Indian Standards. (BIS)	4		Dt-27.6.22, Dt-28.6.22 Dt-29.6.22, Dt-30.6.22

SIGNATURE OF THE CONCERNED FACULTY

SIGNATURE OF THE H.O.D.

30/06/2022

PRINCIPAL
P.C.I.E.T., CHHENDIPADA

PRINCIPAL
Pallab Chandra Institute of
Engineering & Technology
CHHENDIPADA, ANGUL

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

THEORY LESSON PLAN FOR THE SESSION 2021-22

BRANCH : MINING ENGINEERING, SEMESTER : 6TH, SECTION : MNB

NAME OF THE FACULTY : (1) ER. SUNIL KUMAR SAHU, (2) ER. GOBINDA CH. SETHY, (3) ER. UDAYA BISWANATH PRADHAN, (LECT. IN MINING ENGG.)

SEMESTER FROM : 14.03.2022 to 30.06.2022

THEORY SUBJECT: MINE LEGISLATION & GENERAL SAFETY - II (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	Metalliferous Mines Regulations 1961	15	MARCH	
	Various provisions of Metalliferous Mines Regulations 1961.	15		Dt - 14.3.22, Dt - 15.3.22, Dt - 16.3.22 Dt - 17.3.22, Dt - 21.3.22, Dt - 22.3.22 Dt - 23.3.22, Dt - 24.3.22 Dt - 28.3.22, Dt - 29.3.22 Dt - 30.3.22, Dt - 31.3.22
2	Mines V.T. Rules 1966	4	APRIL	
	Various provisions of Mines V.T. Rules 1966	4		Dt - 4.4.22, Dt - 5.4.22. Dt - 6.4.22, Dt - 7.4.22
3	Mines Creche Rules 1966	4		
	Various provisions of Mines Creche Rules 1966.	4		Dt - 11.4.22, Dt - 12.4.22 Dt - 13.4.22, Dt - 18.4.22

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
4	**Maternity Benefit Act**	4		
	Various provisions of Maternity Benefit Act.	4		Dt. 19.4.22, Dt - 20.4.22 Dt - 21.4.22, Dt - 25.4.22
5	**Mines Accident & Safety**	15		
	Discuss their classification, causes & prevention	1		Dt - 26.4.22
	Develop concept about accident cost, accident report, procedure for conducting an enquiry to ascertain the causes of accidents	2		Dt - 27.4.22 Dt - 28.4.22
	Discuss procedure for investigation & reporting Mine accident, accident proneness, fatality rate, frequency rate & severity rate	2	MAY	Dt - 2.5.22, Dt - 4.5.22
	Explain role of supervision in accident prevention, accident due to opencast workings, statistical analysis of accidents, accident statistics, its head & method of data processing	2		Dt - 5.5.22 Dt - 9.5.22
	Develop basis concepts of safety, safety & productivity, safety consciousness & safety campaign, safety organization, safety audit	2		Dt - 10.5.22 Dt - 11.5.22
	Describe rules of safety committee	2		Dt - 12.5.22 Dt - 17.5.22
	Explain the role of workmen inspectors	2		Dt - 18.5.22 Dt - 19.5.22
	Discuss terms like industrial fatigue, preventive maintenance, productive equipments & duties of Safety Officer	2		Dt - 23.5.22, Dt - 25.5.22 Dt - 26.5.22

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
6	**Forest Conservation Act (FCA) 1980.**	3	JUNE	
	Various provisions of Forest Conservation Act (FCA) 1980	3		Dt-1.6.22, Dt-2.6.22 Dt-6.6.22
7	**Environmental Protection Act 1986**	5		
	various provisions of Environmental Protection Act 1986.	5		Dt-7.6.22, Dt-8.6.22 Dt-9.6.22, Dt-13.6.22
8	**MMRD Act & MCR Rules**	5		
	Various provisions of Mineral conservation & exploitation	3		Dt-16.6.22, Dt-20.6.22 Dt-21.6.22,
	National Mineral policy	2		Dt-22.6.22 Dt-23.6.22
9	**Classified Circulars (DGMS)**	5		
	As amended up-to-date	5		Dt-27.6.22, Dt-28.6.22 Dt-29.6.22, Dt-30.6.22

Govind Signature

SIGNATURE OF THE CONCERNED FACULTY

SIGNATURE OF THE H.O.D.

30/06/2022

PRINCIPAL
P.C.I.E.T., CHHENDIPADA

Purna Chandra Institute of Engineering & Technology
CHHENDIPADA, ANGUL

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

THEORY LESSON PLAN FOR THE SESSION 2021-22

BRANCH : MINING ENGINEERING, SEMESTER : 6TH,
SECTION : MNB

NAME OF THE FACULTY : (1) ER. RADHAKRUSHNA BHUTIA
(2) ER. LIPUN DEHURY, (3) ER. AMARENDRA SAHOO
(LECT. IN MINING ENGG.)

SEMESTER FROM : 14.03.2022 to 30.06.2022

THEORY SUBJECT: MINERAL DRESSING (TH-4A)

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**	2	March	
	Objective & scope of application of mineral dressing in surface & u/g mines	2		Dt-14.3.22, Dt-15.3.22
2	**Unit Operations**	6		
	Principle of Blake & dodge jaw crushers, gyratory & cone crushers, roll crusher	6		Dt-16.3.22, Dt-17.3.22 Dt-21.3.22, Dt-22.3.22 Dt-23.3.22
3	**Grinding**	6		
	Principle of ball mill operation, open circuit grinding, close circuit grinding, dry & wet grinding	6		Dt-24.3.22, Dt-28.3.22 Dt-29.3.22, Dt-30.3.22 Dt-31.3.22, Dt-4.4.22
4	**Explain the Procedure for Size Analysis & Use of Standard Screen as also Screening Techniques Employed**	6	April	Dt-5.4.22, Dt-6.4.22 Dt-7.4.22, Dt-11.4.22 Dt-12.4.22
5	**Industrial Screening**	6		
	Explain the principle of industrial screening, type of screening (without calculation)	3		Dt-13.4.22, Dt-18.4.22 Dt-19.4.22
	Explain the operation of classifier & their application	3		Dt-20.4.22, Dt-21.4.22 Dt-25.4.22

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
6	**Gravity Concentration**	6		
	Explain the general principles of wilfly table & its operation	3		Dt-26.4.22, Dt-27.4.22 Dt-28.4.22
	Develop elementary idea regarding the operation jigs	3	May	Dt-2.5.22, Dt-4.5.22, Dt-5.5.22 Dt-9.5.22
7	**Heavy Media Separation**	8		
	Explain the fundamental principle of heavy media separation – Chance process	8		Dt-10.5.22, Dt-11.5.22, Dt-12.5.22 Dt-17.5.22, Dt-18.5.22, Dt-19.5.22 Dt-23.5.22
8	**Floatation**	10		
	Comprehend elementary principle of froth floatation, practical utility of frother, collection, modifiers & depressants	5	June	Dt-25.5.22, Dt-26.5.22 Dt-1.6.22, Dt-2.6.22
	Describe & illustrate floatation cell	5		Dt-6.6.22, Dt-7.6.22 Dt-8.6.22, Dt-9.6.22, Dt-13.6.22
9	**Magnetic & Electrostatic Separators**	10		
	Explain the principle of operation of magnetic & electrostatic separators	5		Dt-16.6.22, Dt-20.6.22, Dt-21.6.22 Dt-22.6.22
	Describe the application of separators in mineral dressing	5		Dt-23.6.22, Dt-27.6.22 Dt-28.6.22, Dt-29.6.22, Dt-30.6.22

SIGNATURE OF THE CONCERNED FACULTY

SIGNATURE OF THE H.O.D.

30/06/2022

PRINCIPAL

P.C.E.T. CHHENDIPADA

PRINCIPAL
Parala College of
Engineering & Technology
CHHENDIPADA, ANGUL