



Dr.T. THIMMAIAH INSTITUTE OF TECHNOLOGY
(Estd. 1986) Oorgaum, Kolar Gold Fields, Karnataka – 563120
(Affiliated to VTU, Belgaum, Approved by AICTE - New Delhi)

1.1.1 Additional Information for Curriculum Planning & Implementation

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12/1/22
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DR. T. THIMMAIAH INSTITUTE OF TECHNOLOGY

Kolar

COURSE BOOK



Period of the Semester: From 19 Apr 2021 To 9 Nov 2021

Dept-Sem-Sec: MI-6-A

Subject with Code: MINERAL PROCESSING & FUEL TECHNOLOGY 18MN63

Time Slot

MON: 09:00 - 09:55

TUE: 09:55 - 10:50

WED: 09:55 - 10:50

THU: 09:55 - 10:50

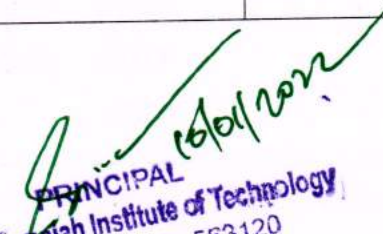
FRI : 11:05 - 12:00

SAT:

Name of the Teacher: Mr Paul Prasanna Kumar

19/04/2021
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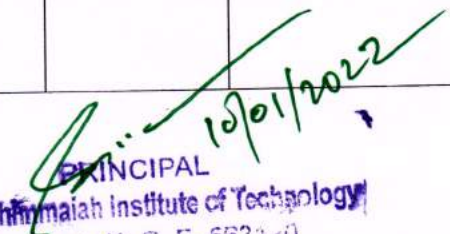
TTIT		Lesson Plan & Execution	
Name of the Faculty		Mr Paul Prasanna Kumar	
Dept-Sem-Sec:		MI-6-A	
Date of Commencement		19 Apr 2021	
Last working day of Semester		9 Nov 2021	
Source Material List			
1		Mineral Processing Technology, B.A.Wills, Pergamon Press. 5th Edition,	
2		Ore Processing S.K.Jain, Oxford IBH, 2nd Edition, 1990	
1		Fuels and Combustion, Dr. Samir Sarkar, Published by Orient Longman Ltd., 1990.	
2		Principles of Mineral Dressing, A.K. Gaudin, TMH Edition, Tata Mc. Graw Hill, 1971.	
Course Outcome List			
1		Interpret the scope, objectives, limitations and sampling procedures adopted in mines	
2		Suggests suitable equipment for crushing and grinding of minerals in mines	
3		Apply the principles of sizing, screens and classifiers in mining industry	
4		Compare different concentration methods, dewatering techniques and its application in processing plant	
5		Distinguish the concepts of float & sink test during processing of minerals	
6		Classify different solid fuels, combustion of coal and its uses in mining industry	


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Subject Name				MINERAL PROCESSING & FUEL TECHNOLOGY		
Period	Planned			Execution		
	Date	Topic	Source material to be referred	Date	Topic	Source material to be referred
Module 1						
1	19 Apr 2021	Scope	TEXT 1	19 Apr 2021	Introduction to Mineral Processing, Scope of Mineral Processing	TEXT 1
2	20 Apr 2021	Scope	TEXT 1	20 Apr 2021	Objectives limitations advantages & disadvantages of mineral processing	TEXT 1
3	21 Apr 2021	objectives and limitations of mineral processing; Liberation and beneficiation characteristics of minerals and coal	TEXT 1	21 Apr 2021	Sampling techniques Liberation & its concepts	TEXT 1
4	22 Apr 2021	objectives and limitations of mineral processing; Liberation and beneficiation characteristics of minerals and coal	TEXT 1	22 Apr 2021	Comminution and its principles	TEXT 1
5	23 Apr 2021	Laboratory sampling	TEXT 1	23 Apr 2021	Theories and stages of comminutions	TEXT 1
6	26 Apr 2021	Theory and practice of crushing and grinding; Different types of crushing and grinding equipment - their application and limitations	TEXT 1	26 Apr 2021	Grinding & its concepts	TEXT 1
7	27 Apr 2021	Theory and practice of crushing and grinding; Different types of crushing and grinding equipment - their application and limitations	TEXT 1	27 Apr 2021	Jaw Crusher, Gyratory Crusher	TEXT 1
8	28 Apr 2021	Theory and practice of crushing and grinding; Different types of crushing and grinding equipment - their application and limitations	TEXT 1	28 Apr 2021	Roll crusher & Cone crusher	TEXT 1
Period	Planned			Execution		
	Date	Topic	Source material to be referred	Date	Topic	Source material to be referred

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9	29 Apr 2021	Theory and practice of crushing and grinding; Different types of crushing and grinding equipment - their application and limitations	TEXT 1	29 Apr 2021	Ball Mill, Rod Mill	TEXT 1
10	30 Apr 2021	Theory and practice of crushing and grinding; Different types of crushing and grinding equipment - their application and limitations	TEXT 1	30 Apr 2021	Autogeneous Mill	TEXT 1
Module 2						
11	3 May 2021	Laboratory size analysis and interpretation; Settling of solids in fluids; Industrial screens; Mechanical classifiers and hydro-cyclones: Numerical problems	TEXT 1	3 May 2021	Laboratory size analysis and interpretation	TEXT 1
12	4 May 2021	Laboratory size analysis and interpretation; Settling of solids in fluids; Industrial screens; Mechanical classifiers and hydro-cyclones: Numerical problems	TEXT 1	4 May 2021	Settling of solids in fluids	TEXT 1
13	5 May 2021	Laboratory size analysis and interpretation; Settling of solids in fluids; Industrial screens; Mechanical classifiers and hydro-cyclones: Numerical problems	TEXT 1	5 May 2021	Industrial Screen- Manual Screen	TEXT 1
Period	Planned			Execution		
	Date	Topic	Source material to be referred	Date	Topic	Source material to be referred
14	6 May 2021	Laboratory size analysis and interpretation; Settling of solids in fluids; Industrial screens; Mechanical classifiers and hydro-cyclones: Numerical problems	TEXT 1	6 May 2021	Industrial Screen-Automatic & Mechanical	TEXT 1
15	7 May 2021	Laboratory size analysis and interpretation; Settling of solids in fluids; Industrial screens; Mechanical classifiers and hydro-cyclones: Numerical problems	TEXT 1	7 May 2021	Mechanical Classifier & Its Principles	TEXT 1


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16	10 May 2021	Laboratory size analysis and interpretation; Settling of solids in fluids; Industrial screens; Mechanical classifiers and hydro-cyclones: Numerical problems	TEXT 1	10 May 2021	Centrifugal Classifier	TEXT 1
17	11 May 2021	Laboratory size analysis and interpretation; Settling of solids in fluids; Industrial screens; Mechanical classifiers and hydro-cyclones: Numerical problems	TEXT 1	11 May 2021	Hydraulic Classifier	TEXT 1
18	12 May 2021	Laboratory size analysis and interpretation; Settling of solids in fluids; Industrial screens; Mechanical classifiers and hydro-cyclones: Numerical problems	TEXT 1	12 May 2021	Hydro-cyclones	TEXT 1
Period	Planned			Execution		
	Date	Topic	Source material to be referred	Date	Topic	Source material to be referred
19	13 May 2021	Laboratory size analysis and interpretation; Settling of solids in fluids; Industrial screens; Mechanical classifiers and hydro-cyclones: Numerical problems	TEXT 1	13 May 2021	Differential Settling	TEXT 1
20	17 May 2021	Laboratory size analysis and interpretation; Settling of solids in fluids; Industrial screens; Mechanical classifiers and hydro-cyclones: Numerical problems	TEXT 1	17 May 2021	Theory of particle settling in fluids	TEXT 1
Module 3						
21	21 May 2021	Flowing Film Concentrations	TEXT 1	21 May 2021	Flowing Film Concentrations	TEXT 1
22	27 May 2021	Jigging	TEXT 1	18 May 2021	Introduction to Gravity Concentration Methods-Jigging	TEXT 1
23	28 May 2021	heavy media separation	TEXT 1	19 May 2021	Wilfley Table-Shaking Table	TEXT 1
24	31 May 2021	flowing film concentration - theory	TEXT 1	20 May 2021	flowing film concentration - theory	TEXT 1
25	1 Jun 2021	application and limitations	TEXT 1	1 Jun 2021	heavy media separation	TEXT 1
26	2 Jun 2021	Physico-chemical principles; Reagents; Machines; Flotation of sulphides	TEXT 1	2 Jun 2021	Introduction to Flotation	TEXT 1

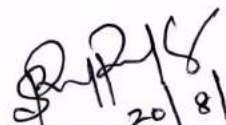
PRINCIPAL

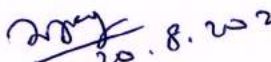
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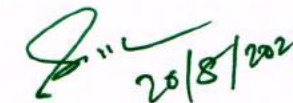
27	3 Jun 2021	Physico-chemical principles; Reagents; Machines; Flotation of sulphides	TEXT 1	3 Jun 2021	Physico-chemical principles of Flotation & flotation machines	TEXT 1
28	4 Jun 2021	oxides and coal	TEXT 1	4 Jun 2021	Flotation Reagents, Flotation of sulphide ores	TEXT 1
29	7 Jun 2021	Principles	TEXT 1	7 Jun 2021	Electrical method of concentration	TEXT 1
30	8 Jun 2021	Principles	TEXT 1	8 Jun 2021	mechanical methods of concentration	TEXT 1
31	9 Jun 2021	fields of application and limitations	TEXT 1	9 Jun 2021	fields of application and limitations	TEXT 1
Module 4						
32	18 Jun 2021	filtration	TEXT 1	18 Jun 2021	filtration	TEXT 1
33	24 Jun 2021	and drying techniques	TEXT 1	24 Jun 2021	and drying techniques	TEXT 1
Period	Planned			Execution		
	Date	Topic	Source material to be referred	Date	Topic	Source material to be referred
34	25 Jun 2021	coal	TEXT 1	25 Jun 2021	coal	TEXT 1
35	1 Jul 2021	procedure for float and sink test	REF 1	10 Jun 2021	procedure for float and sink test	REF 1
36	2 Jul 2021	procedure for float and sink test	REF 1	11 Jun 2021	procedure for sink test	REF 1
37	5 Jul 2021	construction of washability curves and their use/application	REF 1	14 Jun 2021	construction of washability curves and their use/application	REF 1
38	6 Jul 2021	construction of washability curves and their use/application	REF 1	15 Jun 2021	construction of washability curves and their use/application	REF 1
39	7 Jul 2021	Principles and techniques: thickening	TEXT 1	16 Jun 2021	Principles and techniques: thickening	TEXT 1
40	8 Jul 2021	filtration	TEXT 1	17 Jun 2021	filtration	TEXT 1
41	9 Jul 2021	and drying techniques	TEXT 1	21 Jun 2021	and drying techniques	TEXT 1
42	12 Jul 2021	coal, copper, lead	TEXT 1	23 Jun 2021	coal	TEXT 1
43	13 Jul 2021	zinc, gold	TEXT 1	7 Jul 2021	copper	TEXT 1
44	14 Jul 2021	iron, manganese ores and lime stone	TEXT 1	9 Jul 2021	lead	TEXT 1
45	15 Jul 2021	manganese ores and lime stone	TEXT 1	15 Jul 2021	manganese ores and lime stone	TEXT 1
46	16 Jul 2021	zinc	TEXT 1	16 Jul 2021	zinc	TEXT 1
Module 5						
47	19 Jul 2021	Wood, peat	TEXT 1	13 Jul 2021	zinc, gold	TEXT 1
48	20 Jul 2021	lignite, coal	TEXT 1	15 Jul 2021	lignite	TEXT 1

49	21 Jul 2021	anthracite; proximate and ultimate analyses; coal characteristics for different industrial uses; characteristics of Indian coals; caking and coking properties; Liquid fuels: Petroleum - its products and testing methods	REF 1	22 Jul 2021	Wood, peat	REF 1
Period	Planned			Execution		
	Date	Topic	Source material to be referred	Date	Topic	Source material to be referred
50	22 Jul 2021	Gaseous fuels: Natural gas	REF 1	23 Jul 2021	Gaseous fuels: Natural gas	REF 1
51	23 Jul 2021	producer gas and water gas	REF 1	9 Aug 2021	producer gas and water gas	REF 1
52	26 Jul 2021	Mechanism of coal combustion	REF 1	10 Aug 2021	Mechanism of coal combustion	REF 1
53	27 Jul 2021	Mechanism of coal combustion	REF 1	11 Aug 2021	Mechanism of coal combustion	REF 1
54	28 Jul 2021	combustion systems (combustion stoichiometry)	REF 1	12 Aug 2021	combustion systems (combustion stoichiometry)	REF 1
55	2 Aug 2021	carbonization of coal: Low temperature carbonization	REF 1	13 Aug 2021	carbonization of coal: Low temperature carbonization	REF 1
56	3 Aug 2021	high temperature carbonization	REF 1	14 Aug 2021	high temperature carbonization	REF 1

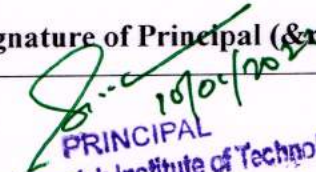
Module No.	# of Classes Planned(till date)	Planned Effort(till date)	# of Classes Executed(till date)	Actual Effort (till date)	% Coverage
1	10	9hrs 10min	10	9hrs 10min	100.0
2	10	9hrs 10min	10	9hrs 10min	100.0
3	11	10hrs 5min	11	10hrs 5min	100.0
4	17	15hrs 35min	17	15hrs 35min	100.0
5	8	7hrs 20min	8	7hrs 20min	100.0


20/8/2021
Faculty in charge


20.8.2021
HOD's Signature


20/8/2021
Signature of Principal (& remark if any)

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DEPARTMENT OF
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10/10/2021
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F.No.:DrTTIT/IQAC/2020-21/008A

Date : 17.11.2021

Department of Mining Engineering

Syllabus covered as on 16.11.2021

Semester : 5

Sub.Code	Course Name	Name of the Faculty	No. of classes	No. of modules covered	Percentage	Remarks	Signature
18MN51	Mine Management	Dr. Manas Mukopadhyay	16	1.8	36		20/11/21
18MN52	Underground Coal Mining	Mr. John Gladious	15	1.6	32		11/11/21
18MN53	Surface Mining	Mr. Praveen R	11	1.3	26		R.P. 17/11/2021
18MN54	Mine Ventilation	Dr. Vijayaraghavan P	11	1.5	30		17/11/2021
18MN55	Rock Mechanics	Dr. Manjunath A	15	1.5	30		Manjunath
18MN56	Mine Electrical Engineering	Mr. Ronald Lawrance	13	1.5	30		Lawrence
18MNL57	Rock Mechanics Lab	Dr. Manjunath A	02	2	15		Manjunath
18MNL58	Mine Electrical Engineering Lab	Mr. Ronald Lawrance	02	02	15		Lawrence
18CIV59	Environmental Studies	Ms. Vinodhini C	03	1.5	20%		Vinodhini

Class Coordinator

12/11/22
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17.11.2021
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Dr.T.THIMMAIAH INSTITUTE OF TECHNOOY, OORGAUM, KGF.
DEPARTMENT OF MINING ENGINEERING
FEED BACK ANALYSIS - II: 2020-21

3rd Semester

Sl. No.	Feedback Parameter	18MAT31	18MN32	18MN33	18MN34	18MN35	18MN36
1	The effectiveness of teaching	95.00	90.00	92.00	88.00	86.50	88.00
2	Online video and audio delivery	91.00	90.00	92.00	90.00	90.50	87.50
3	Time management	91.00	90.00	92.00	88.00	88.50	89.00
4	Is online teaching material is easy to understand	84.00	87.50	93.00	86.00	90.50	88.00
5	The Faculty's interaction in solving doubts	87.50	90.00	92.50	90.00	92.50	90.00
6	Communication skill during the online Class	87.50	90.00	92.20	90.00	92.35	93.00
7	Is Online Internal test conduction effective.	83.33	88.00	92.00	90.00	94.33	88.00
8	Have the Faculty completed all modules.	83.33	88.00	92.00	88.00	92.33	87.50
9	Have the Faculty completed other assessments in effective manner	88.00	92.00	90.00	87.00	88.00	88.00
10	Have the course material provided for all modules	88.00	90.00	92.00	90.00	92.00	87.50
	AVG	87.87	89.55	91.97	88.70	90.75	88.65


(RAJA S.)
CLASS TEACHER


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Dr. T. THIMMAIAH INSTITUTE OF TECHNOLOGY
OORGAUM, K.G.F-563120
STUDENTSFEEDBACK- I (2018-2019)

B

SEM:

3rd

BRANCH:

MIN

DATE:

13/11/19

Sl. No	SUBJECTS	18 MAT31			18MN32			18MN33			18MN34			18MN35			18MN36			LAB1 18MNL37	LAB 2 18MNL38	KVK/KAK						
	NAME OF THE FACULTY	MJN			SRP			YGR			PD			VRP			RK			YGR	RK	RG/VK						
	CRITERION	G	S	NS	G	S	NS	G	S	NS	G	S	NS	G	S	NS	G	S	NS	G	R	G	S	NS				
01	Teaching and Understandability		✓			✓			✓		✓				✓		✓			✓	✓	✓						
02	Utilization of time in class	✓			✓				✓			✓			✓			✓		✓	✓		✓					
03	Communication skills & Voice clarity		✓			✓			✓		✓			✓			✓			✓	✓		✓					
04	Control of the class		✓			✓			✓			✓			✓			✓		✓	✓		✓					
05	Response to student's doubts		✓			✓			✓		✓			✓			✓			✓	✓	✓						
06	Accessibility Outside the Class		✓			✓			✓		✓			✓			✓			✓	✓	✓						
07	Scheduled organization of assignment, class test and quiz		✓		✓				✓		✓			✓			✓			✓	✓		✓					
08	Effective lecture material	✓				✓			✓			✓			✓			✓		✓	✓	✓						
09	No. of modules covered	✓			✓				✓		✓			✓			✓			✓	✓		✓					
10	Test Evaluation quality		✓			✓			✓		✓			✓			✓			✓	✓	✓						
Total Points Scored (for office use)		13			13			14			15			14			14			20			20			15		

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NOTE: 1) G-Good, S-Satisfactory, NS-Not Satisfactory
2) Please tick ✓ in the appropriate box.

DR. T. THIMMAIAH INSTITUTE OF TECHNOLOGY, KOLAR

Student Attendance Report for 19 Apr 2021 - 21 Aug 2021

Subject :MINERAL PROCESSING & FUEL TECHNOLOGY (18MN63)

Attendance Criteria:ALL

Dept-MI Semester: 6 Section: A

Faculty Name:Mr Paul Prasanna Kumar

Sl#	Name	USN/ID	19/4	20/4	21/4	22/4	23/4	26/4	27/4	28/4	29/4	30/4	3/5	4/5	5/5
1	Anees A	IGV19MI400	P	P	P	P	P	P	P	P	A	P	P	P	P
2	Arvind Kumar V	IGV19MI401	P	P	P	P	P	A	P	P	P	P	P	P	P
3	Ashfaq P	IGV18MI003	P	P	P	P	A	P	P	P	P	A	P	A	P
4	Ashley John Paul A	IGV19MI402	P	P	P	P	P	P	P	P	P	P	A	P	P
5	Avinash	IGV18MI005	P	P	P	P	P	P	A	P	P	P	A	P	A
6	Badrinath B	IGV18MI007	P	A	P	P	P	A	P	P	P	P	A	P	P
7	Basavaraj	IGV19MI403	P	A	P	P	P	P	P	P	P	P	P	A	P
8	Boya Vinay	IGV19MI404	A	A	P	P	P	P	P	P	P	P	P	P	A
9	Harikiran M	IGV19MI405	P	P	P	P	P	P	P	A	P	P	P	P	P
10	Ishappa	IGV18MI010	P	A	P	P	P	P	P	A	P	P	P	A	A
11	Jasper P	IGV19MI407	P	P	P	A	P	P	A	P	P	P	P	P	P
12	Karthik P	IGV18MI011	P	A	P	P	P	P	P	P	P	P	A	P	P
13	Kiran Kumar Emmi S	IGV18MI012	P	P	P	P	P	A	P	P	P	P	P	P	P
14	Kiran Nadagouda	IGV18MI013	A	P	A	P	P	P	P	P	P	P	P	P	P
15	Kumarmaruthi S	IGV18MI014	P	P	P	A	P	P	P	A	P	P	P	P	P
16	M Devendra Naidu	IGV18MI016	A	A	P	P	P	P	P	P	P	P	P	A	P
17	Mahesh	IGV16MI041	A	P	P	P	P	A	P	P	P	A	P	A	P
18	Manoj Ranavath J	IGV18MI017	A	P	P	P	P	P	P	P	P	P	A	P	P
19	Micah John Simeon J	IGV19MI408	P	P	P	P	P	P	P	P	P	P	P	P	P
20	Mithun Rahul B	IGV19MI409	P	A	P	P	A	P	P	P	A	P	P	P	P
21	Mohan	IGV19MI410	P	P	P	P	P	P	A	P	P	P	A	P	P
22	Mruthunjay Kumar S B	IGV18MI019	P	P	P	P	P	P	P	P	P	P	P	P	A
23	Nithin M S	IGV18MI021	P	P	P	P	P	P	P	P	P	P	A	P	P
24	Prabhu P	IGV18MI023	P	P	P	P	P	P	P	P	P	P	A	P	P

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18	Manoj Ranavath J	IGV18MI017	P	P	P	A	P	P	P	P	P	P	P	P	P	P
19	Micah John Simeon J	IGV19MI408	P	P	P	A	P	P	P	P	P	P	P	P	P	P
20	Mithun Rahul B	IGV19MI409	P	P	P	P	P	P	P	P	P	P	P	P	P	P
21	Mohan	IGV19MI410	P	P	P	P	P	P	P	P	P	P	P	P	P	P
22	Mruthunjay Kumar S B	IGV18MI019	P	P	P	P	P	P	A	P	P	P	P	P	P	P
23	Nithin M S	IGV18MI021	P	A	P	P	P	P	P	P	P	P	P	P	P	A
24	Prabhu P	IGV18MI023	P	P	P	P	P	P	P	P	P	P	A	P	P	P
25	Pradeep V	IGV18MI024	P	P	P	P	P	P	P	P	A	P	P	P	P	P
26	Puneeth N J	IGV18MI026	P	P	P	A	P	P	P	P	P	P	P	P	P	P
27	Purushothaman V	IGV18MI027	P	P	P	P	P	P	P	P	P	P	P	P	P	P
28	Raghuvaran M S	IGV18MI028	P	P	A	P	P	P	P	P	P	A	P	P	P	P
29	Saleem A	IGV19MI411	P	P	P	P	P	P	P	A	P	P	P	P	P	P
30	Sasikumar R	IGV18MI031	P	P	P	P	P	P	P	P	P	P	P	A	P	P
31	Shoheb M	IGV19MI413	P	A	P	P	P	P	P	P	P	P	P	P	P	P
32	Shreyas Kammala	IGV19MI414	P	P	P	P	P	P	P	P	P	P	P	P	P	P
33	Siddaroodha Batakurki	IGV19MI415	P	P	P	P	P	P	P	P	P	P	P	P	P	P
34	Sudhakar K S	IGV18MI033	P	A	P	P	P	P	P	P	P	P	P	P	P	P
35	Sudhakar S	IGV17MI025	P	P	A	P	P	P	A	P	P	P	P	P	P	P
36	Thirunavukkarasu M	IGV18MI035	A	P	A	P	P	P	P	P	P	P	P	P	P	P
37	Vignesh S	IGV18MI037	P	P	P	P	P	P	P	P	P	P	P	P	P	P
38	Yeshkumar	IGV17MI030	P	P	A	P	P	P	A	P	P	P	P	P	P	P
39	Yuvaraj	IGV17MI031	A	P	P	P	P	P	P	P	P	P	A	P	P	P

Sl#	Name	USN/ID	3/6	4/6	7/6	8/6	9/6	10/6	11/6	14/6	15/6	16/6	17/6	18/6	21/6
1	Anees A	IGV19MI400	P	P	A	P	P	P	P	P	P	P	P	A	P
2	Arvind Kumar V	IGV19MI401	P	P	P	P	P	P	P	P	P	P	P	P	P
3	Ashfaq P	IGV18MI003	P	P	P	P	P	P	P	P	P	P	P	P	P
4	Ashley John Paul A	IGV19MI402	A	P	P	P	P	P	P	P	P	P	P	P	P
5	Avinash	IGV18MI005	P	P	P	P	P	P	P	P	P	P	P	A	P
6	Badrinath B	IGV18MI007	P	P	P	P	P	P	P	P	P	P	P	P	P
7	Basavaraj	IGV19MI403	P	P	P	P	P	P	P	P	P	P	P	P	P
8	Boya Vinay	IGV19MI404	P	P	P	P	P	P	P	A	P	P	P	P	P
9	Harikiran M	IGV19MI405	P	P	P	P	P	P	P	P	P	P	A	P	P
10	Ishappa	IGV18MI010	P	P	P	P	P	P	P	P	P	P	P	P	P

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Sl#	Name	USN/ID	23/6	24/6	25/6	5/7	6/7	7/7	8/7	9/7	12/7	13/7	14/7	15/7	16/7
1	Anees A	IGV19MI400	P	P	P	P	P	P	P	P	P	P	P	P	P
2	Arvind Kumar V	IGV19MI401	P	P	P	P	P	P	P	P	A	P	P	P	P
3	Ashfaq P	IGV18MI003	P	P	P	P	P	P	P	P	P	P	A	P	P
4	Ashley John Paul A	IGV19MI402	P	P	P	P	P	P	P	P	P	P	P	P	P
5	Avinash	IGV18MI005	P	P	P	P	P	P	P	P	P	P	P	P	P
6	Badrinath B	IGV18MI007	P	P	A	A	P	P	P	P	P	P	P	P	P
7	Basavaraj	IGV19MI403	P	P	P	P	P	P	P	P	A	P	P	P	P
8	Boya Vinay	IGV19MI404	P	P	P	P	P	P	P	P	P	P	P	P	P
9	Harikiran M	IGV19MI405	P	P	P	P	P	P	P	P	P	P	P	P	P
10	Ishappa	IGV18MI010	P	P	P	P	P	P	P	P	A	P	P	P	P
11	Jasper P	IGV19MI407	P	P	P	P	P	P	P	P	P	P	P	P	A
12	Karthik P	IGV18MI011	P	P	P	P	A	P	P	P	P	P	P	P	P
13	Kiran Kumar Emmi S	IGV18MI012	P	P	P	P	P	P	P	P	P	P	P	P	P
14	Kiran Nadagouda	IGV18MI013	P	P	P	P	P	A	P	P	P	P	P	P	A
15	Kumarmaruthi S	IGV18MI014	P	P	A	P	P	P	P	P	P	P	P	P	P
16	M Devendra Naidu	IGV18MI016	P	P	P	P	P	P	A	P	P	P	P	P	P
17	Mahesh	IGV16MI041	P	P	P	A	P	P	P	P	P	P	P	P	P
18	Manoj Ranavath J	IGV18MI017	P	P	P	P	P	A	P	P	P	P	P	P	P
19	Micah John Simeon J	IGV19MI408	P	P	P	P	P	P	P	P	P	A	P	P	P
20	Mithun Rahul B	IGV19MI409	P	P	A	P	P	P	P	P	P	P	P	A	P
21	Mohan	IGV19MI410	P	P	P	P	P	P	P	P	P	P	P	P	P
22	Mruthunjay Kumar S B	IGV18MI019	P	P	P	P	P	P	P	P	A	P	P	P	P
23	Nithin M S	IGV18MI021	P	P	P	A	P	P	P	P	P	P	P	P	P
24	Prabhu P	IGV18MI023	P	P	P	P	P	P	P	P	P	P	P	P	P
25	Pradeep V	IGV18MI024	P	P	P	P	P	P	P	P	P	P	P	P	P
26	Puneeth N J	IGV18MI026	P	P	P	P	A	P	P	P	P	P	P	P	P
27	Purushothaman V	IGV18MI027	P	P	P	P	P	P	P	P	P	A	P	P	P
28	Raghuvaran M S	IGV18MI028	P	P	P	P	P	P	P	P	P	P	A	P	P
29	Saleem A	IGV19MI411	P	P	P	P	P	P	P	P	A	P	P	P	P
30	Sasikumar R	IGV18MI031	P	P	P	P	P	P	A	P	P	P	P	A	P
31	Shoheb M	IGV19MI413	A	P	A	P	P	P	P	P	P	P	P	P	P
32	Shreyas Kammala	IGV19MI414	A	P	P	P	P	P	P	P	P	P	P	P	A
33	Siddaroodha Batakurki	IGV19MI415	P	P	P	P	P	P	P	P	P	P	P	P	P

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27	Purushothaman V	IGV18MI027	P	P	P	P	51/56	92
28	Raghuvaran M S	IGV18MI028	P	P	P	P	49/56	88
29	Saleem A	IGV19MI411	P	P	P	P	51/56	92
30	Sasikumar R	IGV18MI031	P	P	P	P	51/56	92
31	Shoheb M	IGV19MI413	P	P	P	P	51/56	92
32	Shreyas Kammala	IGV19MI414	P	P	P	P	51/56	92
33	Siddaroodha Batakurki	IGV19MI415	P	P	P	P	52/56	93
34	Sudhakar K S	IGV18MI033	P	P	P	P	52/56	93
35	Sudhakar S	IGV17MI025	P	P	P	P	53/56	95
36	Thirunavukkarasu M	IGV18MI035	P	P	P	P	52/56	93
37	Vignesh S	IGV18MI037	P	P	P	P	52/56	93
38	Yeshkumar	IGV17MI030	P	P	P	P	51/56	92
39	Yuvaraj	IGV17MI031	P	P	P	P	49/56	88

Staff Handling

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23/8/2021

[Signature]
HOD 23.8.2021

HOD
DEPARTMENT OF
MINING ENGINEERING
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OF TECHNOLOGY
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Principal 23/08/2021

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SEM	VI
Department	Mining
Course	Mineral Processing & Fuel Techn
Academic Year	2020-21

Course Instructor	Paul Prasanna Kumar
Designation	Associate Professor
Course code	18MN63
Total Students	39

CO'S	Description
CO1	Interpret the scope, objective, limitations and sampling procedures adopted in mines
CO2	Suggests suitable equipment for crushing and grinding of minerals in mines
CO3	Apply the principles of sizing, screens and classifiers in mining industry
CO4	Compare different concentration methods, dewatering techniques and its application in processing plant
CO5	Distinguish the concepts of float and sink during processing of minerals
CO6	Classify different solid fuels, combustion of coal and its uses in mining industry

Grading Scale	Level
Score < 40	0
Score 40 to < 45	1
Score 45 to < 50	2
Score > 50	3
Target Percentage	50

CO's	T1	T2	T3	A	T	Q	Total Marks	External Marks
CO1	40						24	60
CO2	60					30	46	
CO3		100		30			70	
CO4			70				42	
CO5			30				18	
CO6				30			10	

Reduction factors to be used	
Internals	T/A/Q
0.6	0.333

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Sl No	USN	Students Name
1	1GV16MI041	MAHESH
2	1GV17MI025	SUDHAKAR S
3	1GV17MI030	YASHKUMAR
4	1GV17MI031	YUVARAJ
5	1GV18MI003	ASHFAQ P
6	1GV18MI005	AVINASH
7	1GV18MI007	BADRINATH B
8	1GV18MI010	ISHAPPA
9	1GV18MI011	KARTHIK P
10	1GV18MI012	KIRAN KUMAR EMMI S
11	1GV18MI013	KIRAN NADAGOUDA
12	1GV18MI014	KUMAR MARUTHI S
13	1GV18MI016	M DEVENDRA NAIDU
14	1GV18MI017	MANOJ RANAVATH J
15	1GV18MI019	MRUTHUNJAY KUMAR S
16	1GV18MI021	NITHIN M S
17	1GV18MI023	PRABHU P
18	1GV18MI024	PRADEEP V
19	1GV18MI026	PUNEETH NJ
20	1GV18MI027	PURUSHOTHAMAN V
21	1GV18MI028	RAGHUVARAN MS
22	1GV18MI031	SASIKUMAR R
23	1GV18MI033	SUDHAKAR K S
24	1GV18MI035	THIRUNAVUKKARASU M
25	1GV18MI037	VIGNESH S
26	1GV19MI400	ANEES A
27	1GV19MI401	ARVIND KUMAR V
28	1GV19MI402	ASHLEY JOHN PAUL A
29	1GV19MI403	BASAVARAJ
30	1GV19MI404	BOYA VINAY
31	1GV19MI405	HARIKIRAN M
32	1GV19MI407	JASPER P
33	1GV19MI408	MICAH JOHN SIMEON J
34	1GV19MI409	MITHUN RAHUL B
35	1GV19MI410	MOHAN
36	1GV19MI411	SALEEM A
37	1GV19MI413	SHOHEB M
38	1GV19MI414	SHREYAS KAMMALA
39	1GV19MI415	SIDDAROODHA BATAKUR

CO Marks in Tests													
Test 1			Q	Test 2				A	Test 3			A	
CO1	CO2	CO4	CO2	CO3	CO1	CO2	CO3	CO4	CO5	CO4	CO6		
24	13		28	42			30	32	9		30		
16	26		30	36			30	21	0		30		
17	23			34			20	0	0		20		
17	26		28	45			30	21	18		30		
25	17		16	44				20	8				
27	18		27	45			30	38	8		30		
25	18		30	43			30	33	8		30		
16	26		29	46			30	33	9		30		
19	26		29	44			30	26	16		30		
17	26		29	43			30	37	10		30		
14	22		11	43			30	28	9		30		
27	17		30	46			30	38	9		30		
15	23			0			30	27	8		30		
25	16		25	44			30	8	18		30		
25	17		29	44			30	35	9		30		
18	28		19	46			30	17	8		30		
27	18		24	45			30	26	0		30		
18	18		24	36			30	16	16		30		
20	27		30	46			30	37	9		30		
9	38		24	45			30	39	9		30		
8	22		15	35			30	10	16		30		
19	27		25	44			30	25	19		30		
18	18		22	44			30	10	16		30		
16	26		27	45			30	34	8		30		
25	17		24	35			30	16	15		30		
25	19		30	45			30	39	8		30		
27	17		23	43			30	38	8		30		
22	16		30	44			30	36	0		30		
19	25		24	42			30	32	6		30		
16	26		15	41			30	30	4		30		
24	17		27	43			30	18	8		30		
24	15		27	43			30	35	0		30		
12	28		25	36			30	16	16		30		
24	16			41			30	34	0		30		
18	27		29	42			30	18	16		30		
25	16		29	41			30	19	0		30		
18	26		16	44			30	35	5		30		
24	16		20	16				30	7				
26	18		14	43			30	16	16		30		

Attainment of CO's											
CO1		CO2		CO3		CO4		CO5		CO6	
M	%	M	%	M	%	M	%	M	%	M	%
14	60	17	37	35	50	19	46	5	30	10	##
10	40	26	56	32	45	13	30	0	0	10	##
10	43	14	30	27	39	0	0	0	0	7	67
10	43	25	54	37	53	13	30	11	60	10	##
15	63	16	34	26	38	12	29	5	27	0	0
16	68	20	43	37	53	23	54	5	27	10	##
15	63	21	45	36	51	20	47	5	27	10	##
10	40	25	55	38	54	20	47	5	30	10	##
11	48	25	55	36	52	16	37	10	53	10	##
10	43	25	55	36	51	22	53	6	33	10	##
8	35	17	37	36	51	17	40	5	30	10	##
16	68	20	44	38	54	23	54	5	30	10	##
9	38	14	30	10	14	16	39	5	27	10	##
15	63	18	39	36	52	5	11	11	60	10	##
15	63	20	43	36	52	21	50	5	30	10	##
11	45	23	50	38	54	10	24	5	27	10	##
16	68	19	41	37	53	16	37	0	0	10	##
11	45	19	41	32	45	10	23	10	53	10	##
12	50	26	57	38	54	22	53	5	30	10	##
5	23	31	67	37	53	23	56	5	30	10	##
5	20	18	40	31	44	6	14	10	53	10	##
11	48	25	53	36	52	15	36	11	63	10	##
11	45	18	39	36	52	6	14	10	53	10	##
10	40	25	53	37	53	20	49	5	27	10	##
15	63	18	40	31	44	10	23	9	50	10	##
15	63	21	47	37	53	23	56	5	27	10	##
16	68	18	39	36	51	23	54	5	27	10	##
13	55	20	43	36	52	22	51	0	0	10	##
11	48	23	50	35	50	19	46	4	20	10	##
10	40	21	45	35	49	18	43	2	13	10	##
14	60	19	42	36	51	11	26	5	27	10	##
14	60	18	39	36	51	21	50	0	0	10	##
7	30	25	55	32	45	10	23	10	53	10	##
14	60	10	21	35	49	20	49	0	0	10	##
11	45	26	56	35	50	11	26	10	53	10	##
15	63	19	42	35	49	11	27	0	0	10	##
11	45	21	46	36	52	21	50	3	17	10	##
14	60	16	35	10	14	18	43	4	23	0	0
16	65	15	34	36	51	10	23	10	53	10	##
CO1	19	CO2	12	CO3	27	CO4	11	CO5	11	CO6	37

VTU	
All CO	
M	%
33	55
24	40
31	52
30	50
36	60
37	62
30	50
28	47
30	50
29	48
22	37
35	58
36	60
29	48
31	52
32	53
37	62
20	33
36	60
38	63
27	45
31	52
30	50
29	48
31	52
38	63
35	58
31	52
30	50
24	40
29	48
34	57
31	52
34	57
33	55
27	45
34	57
31	52
35	58
VTU	28


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Target is 50% marks
Attainment level 1: 40% students scoring more than 50% marks
Attainment level 2: 45% students scoring more than 50% marks
Attainment level 3: 50% students scoring more than 50% marks

PERCENTAGE OF STUDENTS SCORING > 50% of Marks (For Internal Assessment)						
CO'S	CO1	CO2	CO3	CO4	CO5	CO6
Number of Students Scored above 50% marks	19	12	27	11	11	37
Number of Students attempted the test	39	39	39	39	39	39
% OF STUDENTS	48.72	30.77	69.23	28.21	28.21	94.87
Attainment Level	2	0	3	0	0	3

PERCENTAGE OF STUDENTS SCORING > 50% of marks (For University Examination)	
Number of Students Scored above 50 % of Marks	28
Number of Students attempted the Examination	39
% OF STUDENTS	71.79
Attainment Level	3

Calculation for CO attainment by direct assessment (40% weightage for IA & 60% SEE marks)	Attainment
CO1	0.63
CO2	0.55
CO3	0.71
CO4	0.54
CO5	0.54
CO6	0.81

CO attainment using Course survey	
CO1	2.74
CO2	2.71
CO3	2.74
CO4	2.71
CO5	2.61
CO6	2.61

Overall CO attainment	
CO1	1.049
CO2	0.985
CO3	1.114
CO4	0.977
CO5	0.957
CO6	1.170

Weghtage for Indirect assessment	
Direct	Indirect
0.8	0.2

PO MAPPING

CO'S	1	2	3	4	5	6	7	8	9	10	11	12
CO1	1				2	3	1	2	3	1		1
CO2	3			1	3		3	2	3	1	3	1
CO3	2	2			3	3	3	2	2	1	2	1
CO4	2				3	2	3	2	2	1		1
CO5	3			2	2	1	1	1	1	1		1
CO6	3				2	1	3	2	1	1		1
Total	14	2	0	3	15	10	14	11	12	6	5	6
PO AVERAGE	2.33	2.00		1.50	2.50	2.00	2.33	1.83	2.00	1.00	2.50	1.00

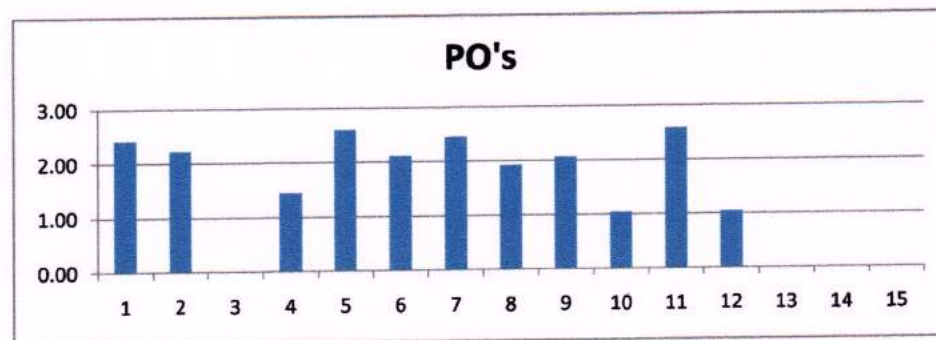
PSO MAPPING

CO'S	1	2	3
CO1	3	1	3
CO2	3	1	3
CO3	3	1	3
CO4	3	1	3
CO5	1	1	3
CO6	1	1	3
Total	14	6	18
PSO AVERAGE	2.33	1.00	3.00

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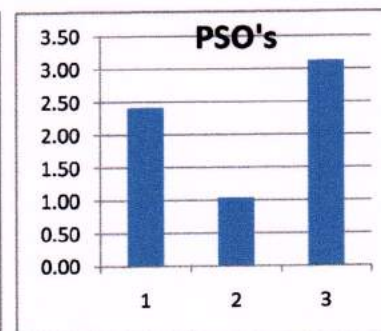
ATTAINMENT

CO'S	1	2	3	4	5	6	7	8	9	10	11	12
CO1	1.05				2.10	3.15	1.05	2.10	3.15	1.05		1.05
CO2	2.96			0.99	2.96		2.96	1.97	2.96	0.99	2.96	0.99
CO3	2.23	2.23			3.34	3.34	3.34	2.23	2.23	1.11	2.23	1.11
CO4	1.95				2.93	1.95	2.93	1.95	1.95	0.98		0.98
CO5	2.87			1.91	1.91	0.96	0.96	0.96	0.96	0.96		0.96
CO6	3.51				2.34	1.17	3.51	2.34	1.17	1.17		1.17
PO AVERAGE	2.43	2.23		1.45	2.60	2.11	2.46	1.92	2.07	1.04	2.59	1.04



ATTAINMENT

CO'S	1	2	3
CO1	3.15	1.05	3.15
CO2	2.96	0.99	2.96
CO3	3.34	1.11	3.34
CO4	2.93	0.98	2.93
CO5	0.96	0.96	2.87
CO6	1.17	1.17	3.51
PSO AVERAGE	2.42	1.04	3.13



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