



# MATS UNIVERSITY

ARANG, RAIPUR (C.G.)



## Scheme of Teaching & Examination III - Semester

S.N.	code	Subject	Periods per week			Scheme of marks		Total Credit
			L	T	P	ESE	IM	
1.	BT360	Mathematics – III	4	0	-	70	30	3
2.	BT361	Computer Programming	3	0	-	70	30	3
3.	BT362	Mechanics of Solids & Fluid Mechanics	3	0	-	70	30	4
4.	BT363	Mining Geology-I	4	0	-	70	30	4
5.	BT364	Mine Surveying-I	4	0	-	70	30	4
6.	BT365	Introduction to Mining Engineering	4	0	-	70	30	4
7.	BT366	Computer Programming Laboratory	-	-	2	30	20	1
8.	BT367	Mechanics of Solids & Fluid Mechanics Lab	-	-	2	30	20	1
9.	BT368	Mining Geology-I Lab	-	-	2	30	20	1
10.	BT369	Mine Surveying-I Lab	-	-	2	30	20	1
<b>Total</b>			<b>22</b>	<b>0</b>	<b>8</b>	<b>540</b>	<b>260</b>	<b>26</b>

L – Lecture, T – Tutorial, ESE – End Semester Examination,

P – Practical, IM – Internal Marks (Include Class Test & Teacher's Assessments)



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### Scheme of Teaching & Examination

#### IV Semester

S.N.	code	Subject	Periods per week			Scheme of marks		Total Credit
			L	T	P	ESE	IM	
1.	BT460	Mine Environment-I	3	0	-	70	30	3
2.	BT461	Underground Coal Mining	4	0	-	70	30	4
3.	BT462	Engineering Materials	4	0	-	70	30	4
4.	BT463	Mining Geology – II	4	0	-	70	30	4
5.	BT464	Mine Surveying-II	4	0	-	70	30	4
6.	BT465x	Open Elective – I	3	0	-	70	30	3
7.	BT466	Mining Geology – II Lab	-	-	2	30	20	1
8.	BT467	Mine Surveying-II Lab	-	-	2	30	20	1
9.	BT468	Underground Coal Mining Lab	-	-	2	30	20	1
10.	BT469	Mine Environment-I Lab	-	-	2	30	20	1
<b>Total</b>			<b>22</b>	<b>0</b>	<b>8</b>	<b>540</b>	<b>260</b>	<b>26</b>

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## **OPEN ELECTIVE-I**

<b>Subject Code</b>	<b>Subject Name</b>
BT4651	Engineering Risk–Benefit Analysis
BT4652	Disaster Management
BT4653	Global Strategy and Technology
BT4654	Project Management
BT4655	Software Engineering



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### Scheme of Teaching & Examination

#### IV Semester

S.N.	code	Subject	Periods per week			Scheme of marks		Total Credit
			L	T	P	ESE	IM	
1.	BT560	Mine Ventilation	4	0	-	70	30	4
2.	BT561	Mine Management	3	0	-	70	30	3
3.	BT562	Mine Legislation – I	4	0	-	70	30	4
4.	BT563	Mine Machinery – I	4	0	-	70	30	4
5.	BT564	Surface Mining – I	4	0	-	70	30	4
6.	BT565x	Open Elective – II	3	0	-	70	30	3
7.	BT566	Vocational & Industrial Training Evaluation and presentation	-	-	2	30	20	1
8.	BT567	Mine Ventilation Laboratory	-	-	2	30	20	1
9.	BT568	Mine Machinery – I Laboratory	-	-	2	30	20	1
10.	BT569	Surface Mining - I Laboratory	-	-	2	30	20	1
<b>Total</b>			<b>22</b>	<b>0</b>	<b>8</b>	<b>540</b>	<b>260</b>	<b>26</b>

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## Open Elective – II

Subject Code	Subject Name
BT5651	Environment and Ecology
BT5652	Energy Management
BT5653	Safety Engineering
BT5654	Construction Management
BT5655	Geo-tech Engineering



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Scheme of Teaching & Examination

VI - Semester



S.N.	code	Subject	Periods per week			Scheme of marks		Total Credit
			L	T	P	ESE	IM	
1.	BT660	Mineral Dressing	4	0	-	70	30	4
2.	BT661	Underground Metal Mining	3	0	-	70	30	3
3.	BT662	Blasting Technology	4	0	-	70	30	4
4.	BT663	Mine Legislation - II	3	0	-	70	30	3
5.	BT664	Mine Machinery - II	4	0	-	70	30	4
6.	BT665x	Professional Elective – I	3	0	-	70	30	3
7.	BT666	Minor Project	-	-	3	30	20	2
8.	BT667	Mining Machinery - II Lab	-	-	2	30	20	1
9.	BT668	Blasting Engineering Lab	-	-	2	30	20	1
10.	BT669	Mineral Dressing Lab	-	-	2	30	20	1
<b>Total</b>			<b>21</b>	<b>0</b>	<b>09</b>	<b>540</b>	<b>260</b>	<b>26</b>

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### Professional Elective – I

Subject Code	Subject Name
BT6651	Coal & Non-Coal Mineral Processing
BT6652	Small Scale & Dimensional Stone Mining
BT6653	Surface Mining-II
BT6654	Mine power Systems
BT6655	Electrical Machinery in Mines



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Scheme of Teaching & Examination

VII - Semester

S.N.	code	Subject	Periods per week			Scheme of marks		Total Credit
			L	T	P	ESE	IM	
1.	BT760	Mine Economics	4	0	-	70	30	4
2.	BT761	Rock Mechanics	4	0	-	70	30	4
3.	BT762	Mine Environment-II	4	0	-	70	30	4
4.	BT763	Mine Planning & Development	4	0	-	70	30	4
5.	BT764x	Professional Elective – II	4	0	-	70	30	4
6.	BT765	Mine Environment-II Laboratory	-	-	2	30	20	1
7.	BT766	Rock Mechanics Laboratory	-	-	2	30	20	1
8.	BT767	Vocational & Industrial Training Evaluation & Presentation	-	-	2	30	20	1
9.	BT768	Computer Application in Mining Laboratory	-	-	2	30	20	1
<b>Total</b>			<b>20</b>	<b>0</b>	<b>8</b>	<b>470</b>	<b>230</b>	<b>24</b>

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### Professional Elective – II

Subject Code	Subject Name
BT7641	Computer Applications in Mining
BT7642	Advance Surface Mining
BT7643	Mine Health and Safety
BT7644	Advanced Mining Geology
BT7645	Advance Mine Machinery



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Scheme of Teaching & Examination

VIII - Semester

S.N.	code	Subject	Periods per week			Scheme of marks		Total Credit
			L	T	P	ESE	IM	
1.	BT860	Strata Control	4	0	-	70	30	4
2.	BT861X	Professional Elective – III	4	0	-	70	30	4
3.	BT862X	Open Elective – III	3	0	-	70	30	3
4.	BT863	Strata Control Lab	-	-	2	30	20	1
5.	BT864	Major Project Work	-	-	18	120	80	12
<b>Total</b>			<b>11</b>	<b>0</b>	<b>20</b>	<b>470</b>	<b>230</b>	<b>24</b>

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Teacher's Assessments) Professional Elective :

Subject Code	Subject Name
BT8611	Application of Computer, Geographical Information System (GIS) and Remote Sensing (RS) in Mining.
BT8612	Supply Chain Management-Planning
BT8613	Rock Excavation Engineering
BT8614	Fire & Safety Engineering
BT8615	Production Drilling for Oil wells

Open Elective:-

Subject Code	Subject Name
BT8621	Engineering System Analysis and Design
BT8622	Engineering System Design Optimization
BT8623	Engineering System Modeling and Simulation
BT8624	Game Theory with Engineering Applications
BT8625	Pollution Control in Mining