

**SECOND YEAR ENGINEERING: MINING ENGINEERING**  
**SCHEME OF INSTRUCTION AND EXAMINATION**  
**(RC 2016 - 17)**

**SEMESTER - III**

Subject Code	Name of the Subject	Scheme of Instruction Hrs/Week			Scheme of Examination						
		L	T	P#	ThDuration (Hrs)	Marks					
						Th	S	TW	P	O	TOTAL
MN3.1	Engineering Mathematics - III	3	1	--	3	100	25	--	--	--	125
MN3.2	Electrical Drives and Digital Electronics	3	1	2	3	100	25	--	25	--	150
MN3.3	Mechanics of Solids	3	--	2	3	100	25	--	--	25	150
MN3.4	Elements of Mining Engineering	3	1	--	3	100	25	--	--	--	125
MN3.5	Machine Drawing and CAD	1	1	3	4	100	25	25	--	--	150
MN3.6	Mining Geology - I	3	1	2	3	100	25	--	25	--	150
<b>TOTAL</b>		<b>16</b>	<b>5</b>	<b>9</b>	<b>--</b>	<b>600</b>	<b>150</b>	<b>25</b>	<b>50</b>	<b>25</b>	<b>850</b>

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**SEMESTER - IV**

Subject Code	Name of the Subject	Scheme of Instruction Hrs/Week			Scheme of Examination						
		L	T	P#	ThDuration (Hrs)	Marks					TOTAL
						Th	S	TW	P	O	
MN.4.1	Mine Development	3	1	--	3	100	25	--	--	--	125
MN 4.2	Fluid Mechanics and Machinery	3	--	2	3	100	25	--	25	--	150
MN 4.3	Mining Geology - II	3	2	--	3	100	25	25	--	--	150
MN 4.4	Surveying-I	3	1	2	3	100	25	--	25	--	150
MN 4.5	Rock Mechanics and Ground Control -I	3	1	2	3	100	25	--	--	25	150
MN 4.6	Numerical Techniques and Statistics	3	1	--	3	100	25	--	--	--	125
<b>TOTAL</b>		<b>18</b>	<b>6</b>	<b>6</b>	<b>--</b>	<b>600</b>	<b>150</b>	<b>25</b>	<b>50</b>	<b>25</b>	<b>850</b>

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**Note:** Industrial Training of four weeks to be undergone after Semester IV examinations which will be evaluated in Semester V.

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**SEMESTER -V**

Subject Code	Name of the Subject	Scheme of Instruction Hrs/Week			Scheme of Examination						
		L	T	P#	ThDuration (Hrs)	Marks					
						Th	S	TW	P	O	TOTAL
MN 5.1	Surveying-II	3	--	2	3	100	25	--	25	--	150
MN 5.2	Rock Mechanics and Ground Control-II	3	--	2	3	100	25	--	--	25	150
MN 5.3	Mining Machinery-I	3	--	2	3	100	25	--	25	--	150
MN 5.4	Mine Management and Legislation	3	1	--	3	100	25	--	--	--	125
MN 5.5	Surface Mining	3	2	--	3	100	25	--	--	--	125
MN 5.6	Underground Coal Mining	3	1	--	3	100	25	--	--	--	125
MN 5.7	Industrial Training \$	--	--	2	--	--	--	25	--	--	25
<b>TOTAL</b>		<b>18</b>	<b>4</b>	<b>8</b>	<b>--</b>	<b>600</b>	<b>150</b>	<b>25</b>	<b>50</b>	<b>25</b>	<b>850</b>

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\$ Industrial Training is to be carried out after Semester IV and the report is to be prepared and presented in Semester V. **It is a Separate Head of Passing.**

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**SEMESTER - VI**

Subject Code	Name of the Subject	Scheme of Instruction Hrs/Week			Scheme of Examination						
		L	T	P#	ThDuration (Hrs)	Marks					
						Th	S	TW	P	O	TOTAL
MN 6.1	Mining Machinery-II	3	1	2	3	100	25	--	--	--	125
MN 6.2	Mine Environment-I	3	1	2	3	100	25	--	25	--	150
MN 6.3	Mineral Processing	3	--	2	3	100	25	--	25	--	150
MN 6.4	Underground Metal Mining	3	2	--	3	100	25	25	--	--	150
MN 6.5	Mine Economics and Valuation	3	1	--	3	100	25	--	--	--	125
MN 6.6	Mine Surveying	3	1	--	3	100	25	--	--	25	150
<b>TOTAL</b>		<b>18</b>	<b>6</b>	<b>6</b>	<b>--</b>	<b>600</b>	<b>150</b>	<b>25</b>	<b>50</b>	<b>25</b>	<b>850</b>

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**SEMESTER -VII**

Subject Code	Name of the Subject	Scheme of Instruction Hrs/Week			Scheme of Examination						
		L	T	P#	ThDuration (Hrs)	Marks					
						Th	S	TW	P	O	TOTAL
MN 7.1	Mine Environment - II	3	1	2	3	100	25	--	25	--	150
MN 7.2	Mine Disaster Management	4	--	--	3	100	25	--	--	--	125
MN 7.3	Mine Safety and Legislation	4	--	--	3	100	25	--	--	--	125
MN 7.4	Elective-I	4	--	--	3	100	25	--	--	25	150
MN 7.5	Elective-II	4	--	2	3	100	25	--	--	25	150
MN 7.6	Project	--	--	4	--	--	--	--	--	25	25
<b>TOTAL</b>		<b>19</b>	<b>1</b>	<b>8</b>	<b>--</b>	<b>500</b>	<b>125</b>	<b>--</b>	<b>25</b>	<b>75</b>	<b>725</b>

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**List of Electives**

Elective-I		Elective-II	
MN 7.4.1	Rock Fragmentation Engineering	MN 7.5.1	Bulk Material Handling
MN 7.4.2	Underground Space Technology	MN 7.5.2	Optimisation Technique in Mineral Industry
MN 7.4.3	Petroleum Engineering	MN 7.5.3	Computer Applications in Mining
MN 7.4.4	Coal Bed Methane	MN 7.5.4	Advanced Surface Mining

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**SEMESTER -VIII**

Subject Code	Name of the Subject	Scheme of Instruction Hrs/Week			Scheme of Examination						
		L	T	P#	ThDuration (Hrs)	Marks					
						Th	S	TW	P	O	TOTAL
MN 8.1	Mine Planning and Design	4	1	--	3	100	25	--	--	--	175
MN 8.2	Mine Environmental Management	4	--	2	3	100	25	--	25	--	175
MN 8.3	Elective-III	3	1	--	3	100	25	--	--	25	175
MN 8.4	Elective-IV	3	--	2	3	100	25	--	--	25	175
MN 8.5	Project *	--	--	8	--	--	--	75	--	75	150
<b>TOTAL</b>		<b>14</b>	<b>2</b>	<b>12</b>	<b>--</b>	<b>400</b>	<b>100</b>	<b>75</b>	<b>25</b>	<b>125</b>	<b>725</b>

**\* Term Work in Project is a Separate Head of Passing.**

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**List of Electives**

Elective-III		Elective-IV	
MN 8.3.1	Rock Slope Engineering	MN.8.4.1	Entrepreneurship Development
MN 8.3.2	Geostatistics	MN.8.4.2	Exploration Geology
MN 8.3.3	Small Scale Mining and Ocean Mining	MN.8.4.3	Computer Programming (Oops) in C++
MN 8.3.4	Geodetic Surveying	MN 8.4.4	Rock Excavation Engineering