RGPV(DIPLOMA WING)BHOPAL
BRANCH -MINING AND MINE SURVEYING   NAME OF COURSE : Method of w|

COURSE OUTCOME 1	To supervise the mining of coal by bord and pillar metho carried out with safety.
LEARNING OUTCOME-1.1	Able to describe the board and pillar working method.
CONTENTS	Classification of method of working. Conditions for selection of method of working. Bord and pillar- applicability advantages and disadvanta Calculation of percentage of extraction. Design of panel
METHOD OF ASSESSMENT	Internal: Mid Semester Exam - Pen paper test/Assignme
LEARNING OUTCOME 1.2	Able to differentiate study the various working layout.
CONTENTS	Different layout classification SDL chain conveyor layout Continuous miners LHD layout
METHOD OF ASSESSMENT	External : End semester Examination-Pen Paper Test
LEARNING OUTCOME 1.3	able to sketch and describe layout .
CONTENTS	Sketch and describe pit top and pit bottom layout.
METHOD OF ASSESSMENT	Internal : Task /Experiment performance in lab.
LEARNING OUTCOME-1.4	Able to demonstrate various activities in board and pill
CONTENTS	Manpower calculation and OMS. Open & closed panel system. Preparatory arrangements before depillaring. Line of extraction and numbering of pillars. Systematic support rules. Different types of pillar extraction methods. Caving. Stowing.
METHOD OF ASSESSMENT	External : End semester Examination-Pen Paper Test
LEARNING OUTCOME 1.5	Able to Draw the plan of board and pillar method.
CONTENTS	Plan an under ground coal mine (bord & pillar method)
METHOD OF ASSESSMENT	Internal : Task /Experiment performance in lab.

LEARNING OUTCOME 1.6	Able to interpret the special condition of board and pilla
CONTENTS	Thick seam working. Precautions while working near - restricted areas, work working below depillared goaf. Contiguous working of seams. Case study.
METHOD OF ASSESSMENT	External : End semester Examination-Pen Paper Test
COURSE OUTCOME 2	Able to operate the mining of coal by long wall methods
LEARNING OUTCOME 2.1	Able to manipulate the operations of longwall mining n
CONTENTS	Applicability. Design of long wall panel. Factors affecting length of long wall face, Barrier width, Long wall advancing. Long wall retreating. Cyclic long wall. Non cyclic long wall.
METHOD OF ASSESSMENT	Internal: Mid Semester Exam - Pen paper test/Assignme
LEARNING OUTCOME 2.2	Able to estimate the requirements longwall method.
CONTENTS	Different machines used. Layout of DERD manpower calculation. Thick seam working with long wall. Top slicing and sub level caving. Long wall caving and stowing.
METHOD OF ASSESSMENT	External : End Semester Theory Exam - Pen paper test
LEARNING OUTCOME 2.3	Able to draw the plan of longwall method.
CONTENTS	Plan an under ground coal mine (longwall method) unde
METHOD OF ASSESSMENT	Internal : Task /Experiment performance in lab
COURSE OUTCOME 3	Able to manipulate the operations in underground met
LEARNING OUTCOME 3.1	Able to dsecribe the metal mines terminology.
CONTENTS	Terms and Terminology used in metal mines. Types of ore bodies.
METHOD OF ASSESSMENT	Internal: Mid Semester Exam - Pen paper test/Assignme

LEARNING OUTCOME-3.2	Able to Illustrate the different types of drivage method.
CONTENTS	Types of underground opening, location of openings. Opening up of a mineral deposit by vertical shaft, inclin Level interval, factor considered while deciding level in Drivage of raises and winzes Driving manually, Modern climber, long hole method, Drop raising, raise boring.
METHOD OF ASSESSMENT	External : End Semester Theory Exam - Pen paper test
LEARNING OUTCOME 3.3	Able to Sketch & describe drivage method
CONTENTS	Modern methods Alimak raiser, long hole method, Drop
METHOD OF ASSESSMENT	Internal : Task /Experiment performance in lab.
COURSE OUTCOME-4	Able to manipulate development and stoping operatio
LEARNING OUTCOME-4.1	Able to select appropriate stoping method.
CONTENTS	Classification and choice of stoping Methods. Open stoping methods, underhand, overhand, Breast st method, their conditions of applicability, sequence of de
METHOD OF ASSESSMENT	External : End Semester Theory Exam - Pen paper test
LEARNING OUTCOME 4.2	Able to Sketch/execute the stoping method
CONTENTS	Open stoping methods, underhand, overhand, Breast st method.
METHOD OF ASSESSMENT	Internal : Task /Experiment performance in lab.
COURSE OUTCOME-5	able to operate the supported stoping methods.
LEARNING OUTCOME 5.1	Able to describe the various supported stoping methods
CONTENTS	Artificially supported methods cut and fill, square set, s Their applicability, stope Preparation, stoping operation merits and demerits etc.
METHOD OF ASSESSMENT	External : End Semester Theory Exam - Pen paper test
LEARNING OUTCOME 5.2	Able to explain the different types of caving methods.
CONTENTS	Caving methods - Top slicing, sublevel caving and block operation etc.
METHOD OF ASSESSMENT	External : End Semester Theory Exam - Pen paper test
LEARNING OUTCOME 5.3	Able to apply the provision of MMR 1961.

CONTENTS Provision of MMR 1961 regarding Means of Access and

METHOD OF ASSESSMENT External : End Semester Theory Exam - Pen paper test

orking (Coal+Metal)   SEMESTER -IV

	Teaching Hours	Marks

od and get the development and depillaring operations

ges.

nt

	9	10

	7	8

	10	10

lar methaod.

	7	8

under given conditions and required out put.

ar method.   10   10

ing near fire area, working below waterlogged area and

                                              7   8
s.

method.

, gate road length.

nt
                                              9   10

                                              7   8

er given conditions and required out put.

                                              10   10
tal mines.

nt
                                              9   10

ed shaft, Adit.
terval, length of back.
methods Alimak raise

| | 9 | 10 |

 raising, raise boring.

| | 10 | 10 |

ns in underground metal mines.

oping ,sublevel stoping, Blast hole stoping, VCR , Shrinkage
evelopment, stoping operation, cycle of operations.

| | 7 | 8 |

oping ,sublevel stoping, Blast hole stoping, VCR , Shrinkage

| | 10 | 10 |

s.

tulled stoping methods.
, cycle of operation, relative

| | 7 | 8 |

caving methods, applicability, stope preparation, cycle of

| | 6 | 6 |

Egress, Ladders and ladder ways.

6   6