MINING ANI

NAME OF COURSE-Advance Geology

OCBC19

RGPV(DIPLOMA WING)BHOPAL

BRANCH -MINING AND MINE SURVEYING NAME OF COURSE : Advance Geo

COURSE OUTCOME 1	Student willbe able to explain / describe the formation
LEARNING OUTCOME-1.1	Student will be able to outline the coal formation methc
CONTENTS	Ranks of a coal, various type of coal-peat, Lignite, Bitum coal, chemical properties of coal structural features of c of coal presser vation, Biochemical change, Carbonizatic line of the lower gondwana coalfields.
METHOD OF ASSESSMENT	Internal: Mid Semester Exam - Pen paper test/Assignme
LEARNING OUTCOME-1.2	will be able to describe the origin of petroleum deposit
CONTENTS	Petroleum, Origin of petroleum migration of petroleum Ore and mineral deposits of India - A brief account of o gold, iron, manganese, copper, lead & zinc, aluminium,
METHOD OF ASSESSMENT	External : End semester Examination-Pen Paper Test
LEARNING OUTCOME 1.3	able to identify common ore and mineral hand specin
CONTENTS	Gold, iron, manganese, copper, lead & zinc, aluminium,
METHOD OF ASSESSMENT	Internal : Task /Experiment performance in lab
LEARNING OUTCOME-1.4	aable to summarise the economical uses of minerals an
CONTENTS	Economical uses of following minerals and ores - gold, ir and mica.
METHOD OF ASSESSMENT	External : End semester Examination-Pen Paper Test
COURSE OUTCOME 2	Able to comprehend the Indian stratigraphy
LEARNING OUTCOME 2.1	Able to explain the Geological time scale and Physiogra
CONTENTS	Principles of stratigraphy, principles of correlation, geol formations. Physiographic divisions of India-Indian peninsular India,
METHOD OF ASSESSMENT	External : End semester Examination-Pen Paper Test

LEARNING OUTCOME 2.2	Able to Describe the system of Indian stratighy units
CONTENTS	Archaean system-A brief account of the dharwar systen Economic Minerals of Archeean rocks. Cuddapah system-cuddapah rocks of cuddapah vasin Ar rocks. Vindhyan system-A brief account of the Vindhyan rocks Gondwanas system-A brief account of the gondwana rc Deccan Traps-A brief account of the Deccan traps of Ind
METHOD OF ASSESSMENT	External : End Semester Theory Exam - Pen paper test
LEARNING OUTCOME 2.3	Able to Skech the Geomorphological and structural moc
CONTENTS	Skech the given Geomorphological and structural mode
METHOD OF ASSESSMENT	Internal : Task /Experiment performance in lab
COURSE OUTCOME-3	Able to identify the deposition of various modes of ores
LEARNING OUTCOME-3.1	Define the terminology of ore deposits. Out line of the
CONTENTS	Concept of ore mineral, gangue and Tenor of ores, A bri
METHOD OF ASSESSMENT	Internal: Mid Semester Exam - Pen paper test/Assignme
LEARNING OUTCOME-3.2	Able to differentiate the various type of ore deposits
CONTENTS	Magmatic ore deposits early magmatic, late magmatic. Pegmatic deposits, sublimation deposits, contact metas Hydrothermal deposits classification of hydrothermal de replacement deposits, Types of replacement deposits. Sedimentation deposits, Evaporation deposits, residual Types of placer deposits. Oxidation and supergene enrichment deposits, metamo
METHOD OF ASSESSMENT	External : End Semester Theory Exam - Pen paper test
LEARNING OUTCOME 3.2	Able to Costruct the geological cross section from geolo
CONTENTS	Maps showing unconformity, maps showing folds, maps intrusion.
METHOD OF ASSESSMENT	Internal : Task /Experiment performance in lab
COURSE OUTCOME-4	Able to describe various prospecting methods.
LEARNING OUTCOME-4.1	Able to describe the Ground prospective method.
CONTENTS	Ground prospective method. A brief outline of various p mapping, trenching, augering, wash boring, and drilling

METHOD OF ASSESSMENT	Internal: Mid Semester Exam - Pen paper test/Assignme
LEARNING OUTCOME-4.2	Able to describe the Geophysical prospective method.
CONTENTS	Geophysical prospecting methods, elementary study of prospecting.
METHOD OF ASSESSMENT	External : End Semester Theory Exam - Pen paper test
LEARNING OUTCOME-4.3	Able to describe the chemical prospective method.
CONTENTS	Sampling, geochemical analyses, interpretation of data.
METHOD OF ASSESSMENT	External : End Semester Theory Exam - Pen paper test
COURSE OUTCOME-5	Able to differentiate types of the ground water .
LEARNING OUTCOME 5.1	Able to explain the phenomenon related to ground wat
CONTENTS	Hydrological cycle, Erosion, transportation and Depositi
METHOD OF ASSESSMENT	External : End Semester Theory Exam - Pen paper test
LEARNING OUTCOME 5.2	Able to explain the phenomenon related to occurrence
CONTENTS	Zone of aeration, saturation, water Table, aquifer, press
METHOD OF ASSESSMENT	External : End Semester Theory Exam - Pen paper test
LEARNING OUTCOME 5.3	Able to Predict the movement of ground water.
CONTENTS	Opening of rocks,porosity,permeability, Darcy's law of g
METHOD OF ASSESSMENT	External : End Semester Theory Exam - Pen paper test

ɔ MINE SURVEYING

	FORMAT 3 SEMESTER -IV	SHEET NO1	Teaching Hours	Marks
logy				
ı method of coal and ore deposit				
ɔds with reference to lower gondwana coalfields				
inous coal, Anthracite and cannel coal.Bended constituents of :oal seam. Origin of coal in situ theory, drift theory, formation ɔn and metamorphism. Occurrence of coal in India. A brief out				
ːnt			9	10
s , minerals and ores.				
. Oil traps, types of oil traps, petroleum deposits of India.				
rigine, occurence, distribution of following minerals and ores - chromite and mica.				
			8	8
nens.				
chromite and mica.				
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ıd ores .				
ron, manganese, copper, lead & zinc, aluminium, chromite				
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aphic divisions of India.				
logical time scale, stratigraphic classification of Indian rock				
indogangetic plan and extrapenisular India.				
			9	10

n, sausor group, Iron-Ore group, Archaean rocks of Rajasthan,

ndhra Pradesh, Delhi System economic minerals of cuddapah

of North India. Economic minerals of vindhyan rocks.
ocks of India. Economic minerals of the Gondwana rocks.
ia. Econonic Importance of Deccan traps.

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Classification of ore deposits

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omatic deposits.
eposits cavity filling deposits, Types of cavity filling deposits,

deposits, Mechanical concentration deposits (placer deposits),

rphic deposits.

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gical map

showing faults, maps showing faults, maps showing igneous

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prospecting methods, surface prospective methods, geological
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gravity, magnetic, electical resistvely and seismic method of		
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on, Depositional feature ,		
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ground water		
ure surface and artesian.		
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round water motion, specific yield and specific retention.		
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