PROGRAMME OUTCOME, PROGRAMME SPECIFIC OUTCOME AND COURSE OUTCOME

FOR

B. SC. GEOLOGY (HONOURS)

Six Semester Course under Choice Based Credit System (CBCS)

PRAGJYOTISH COLLEGE

PROGRAMME OUTCOME

Programme Name: Bachelor of Science (B.Sc.)

PO1. Disciplinary Knowledge: Demonstrate comprehensive knowledge and understanding of one or more disciplines that form a part of an undergraduate programme of study.

PO2. Social Interaction: Express thoughts and ideas effectively in writing and speaking; listen and communicate with others using appropriate media. Work effectively and respectfully with diverse teams; act together as a group or a team in the interests of a common cause; Elicit views of others, mediate disagreements and help reach conclusions in group settings.

PO3. Effective Citizenship: Demonstrate empathetic social concern and equity centered national development, and act with an informed awareness of issues and participate in civic life through volunteering; embrace moral/ ethical values in conducting one's life, possess knowledge of the values and beliefs of multiple cultures and a global perspective; engage in a multicultural society and interact respectfully with diverse groups.

PO4. Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.

PO5. Information and Digital Literacy: Use ICT in a variety of learning situations; demonstrate ability to access, evaluate and use a variety of relevant information sources; and use appropriate software for analysis of data.

PO6. Research-related skills: Critically evaluate practices, policies and theories by following scientific approach to knowledge development. Have a sense of inquiry and capability for asking relevant/ appropriate questions, problematizing, synthesizing and articulating; ability to recognize cause- and- effect relationships, define problems, formulate hypotheses, interpret and draw conclusions from data, ability to plan, execute and report the results of an experiment or investigation; ability to apply one's learning to real life situations.

PROGRAMME SPECIFIC OUTCOME

B. SC. GEOLOGY (HONOURS)

PSO1: The Bachelor of Science in Geology programme of Pragjyotish College under Gauhati University includes graded semester system which combines detailed theoretical knowledge, practical knowledge and extensive field survey/field work. The primary goal of this undergraduate programme is to provide students' academic competencies, ethical values and professional skills that facilitate their transition from undergraduate to post graduate work or professional positions. This programme inspires geology graduates to be life-long learners in a diverse global community and prepare them to pursue a geology career through innovative and hands-on engagement in the classroom, laboratory and field.

PSO2: Students will acquire a solid base of knowledge in the science of geology as a whole as well as earth materials, earth history, mineralogy, petrology and stratigraphy, deformational processes and structural features, geomorphic processes and landforms.

PSO3: Students will learn about the process of formation, application, economic significance and resource locations of geologic resources. Students will cultivate expertise in articulating intricate geological concepts through clear, precise and technically accurate writing, integrating conceptual and observational knowledge to analyze and resolve complex geological data and problems. They will develop expertise in geologic concepts and effectively communicate their knowledge through oral presentations.

PSO4: Students will develop expertise in interpreting, analyzing and critiquing geological issues, including natural hazards such as earthquakes, tsunamis, landslides, volcanic eruptions, floods, erosion etc. by producing high quality written analyses of data, results, interpretations and conclusions in a scientific format.

PSO5: As geology is mainly a field work based subject so students are to be trained to carry out extensive field work and to do advanced geological and scientific analysis, there by imparting practical knowledge/ hands- on training in the geological field work for augmenting practical/ professional knowledge which has implication in near future. Students will greatly strengthen their observational accuracy in the field, and this skill will translate into other aspects of data description and interpretation and they will gain new field experience, perspective, competence, and confidence as a field geologist.

PSO6: Students will develop the capability to produce geologic maps and cross sections of unknown terrains working individually and/or in groups. Production of geologic maps will allow students to demonstrate the capacity for synthesizing and interpreting field data and compiling that information into an appropriate and concise field report.

Mapping of PO, CO:

	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
GLG-HC-1016	Н	M	M	Н	Н	Н	Н	M	Н	M	Н	L
GLG-HC-1026	M	Н	M	Н	L	Н	M	Н	M	L	M	L
GLG-HC-2016	Н	L	M	M	M	Н	M	Н	Н	M	Н	M
GLG-HC-2026	M	Н	M	M	L	Н	Н	Н	Н	Н	Н	Н
GLG-HC-3016	Н	L	M	Н	M	Н	M	Н	Н	M	Н	M
GLG-HC-3026	Н	M	M	Н	M	Н	M	Н	Н	M	Н	M
GLG-HC-3036	Н	M	M	Н	M	Н	Н	M	M	Н	M	L
GLG-HC-4016	M	M	M	M	Н	Н	M	Н	Н	M	Н	M
GLG-HC-4026	M	L	M	Н	M	Н	Н	M	M	Н	Н	Н
GLG-HC-4036	Н	L	M	M	Н	Н	M	Н	Н	M	Н	L
GLG-HC-5016	Н	M	M	Н	M	Н	Н	Н	M	M	Н	M
GLG-HC-5026	M	M	M	Н	M	Н	Н	L	Н	M	Н	L
GLG-HE-5016	Н	M	M	M	M	Н	Н	Н	M	Н	Н	M
GLG-HE-5026	Н	M	M	Н	Н	Н	Н	Н	L	M	M	L
GLG-HC-6016	Н	M	M	Н	Н	Н	Н	L	Н	M	M	M
GLG-HC-6026	Н	M	M	Н	M	Н	Н	M	L	Н	M	Н
GLG-HE-6016	Н	M	M	Н	L	Н	Н	L	Н	M	Н	L
GLG-HE-6026	Н	M	M	Н	Н	Н	M	M	Н	M	Н	L

COURSE OUTCOME

Paper Code: GLG-HC-1016

Paper Name: EARTH SYSTEM SCIENCE

Course Outcome	Unit no. and	Bloom's Taxonomy Level
	Name	
Upon successful completion, the students will	Unit 1: Earth as a	Remember, Understand
have knowledge and skills on—	planet	
1. Earth and its relation to Universe,	Unit 2: Earth's	Remember, Understand
major internal processes of the Earth	magnetic field	
and tectonic processes.	Unit 3: Plate	Remember, Understand,
2. Processes operating in our climate and	Tectonics	Analysis
mechanism of formation and movement	Unit 4:	Remember, Understand,
of the ocean currents which affects the	Hydrosphere and	Analysis
climate system in the Earth.	Atmosphere	
3. Geological time scale and evolution of	Unit 5: Soil	Remember, Understand
through the geologic time	Unit 6:	Remember, Understand
4. Distribution of elements, Chemical	Understanding	
differentiation and composition of the	the past from	
Earth	stratigraphic	
5. Soil formation processes	records	
	Unit 7: Cosmic	Remember, Understand,
	abundance of	Analysis
	elements	

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7
CO 1	Н	M	Н				
CO 2				Н			
CO 3	M					M	
CO 4							M
CO 5					Н		

Paper Code: GLG-HC-1026

Paper Name: MINERAL SCIENCE

Course Outcome	Unit no. and Bloom's Taxonomy Level
	Name
Upon successful completion, the students will	Unit 1: Remember, Understand,
have knowledge and skills on—	Crystallography Analysis
	Unit 2: Crystal Remember, Understand,
1. Elementary ideas about crystal	symmetry and Analysis
morphology in relation to internal	projections
structures	Unit 3: Rock Remember, Understand,
2. Elements of crystal chemistry and	forming minerals Analysis
aspects of crystal structures	Unit 4: Properties Remember, Understand,
3. Basics of Physical mineralogy and	of light and Analysis
Optical Mineralogy.	optical
4. Identification of different minerals	microscopy
based on physical and optical properties	

	Unit 1	Unit 2	Unit 3	Unit 4
CO 1	M			
CO 2		Н		
CO 3			Н	
CO 4				Н

Course outcome

Core Courses

Paper Code: GLG-HC-2016

Paper Name: ELEMENTS OF GEOCHEMISTRY

Course Outcome	Unit no. and	Bloom's Taxonomy Level
	Name	
Upon successful completion, the students will	Unit- 1: Concepts	Remember, Understand,
have knowledge and skills on—	of geochemistry	Analysis
	Unit 2: Layered	Remember, Understand,
1. Concepts of geochemistry	structure of Earth	Analysis
2. Composition of different Earth	and geochemistry	
reservoirs and the nuclides and	Unit 3: Element	Remember, Understand,
radioactivity	transport	Analysis
3. concept of radiogenic isotopes in	Unit 4:	Remember, Understand,
geochronology and isotopic tracers	Geochemistry of	Analysis
4. Use appropriate techniques for	solid Earth	
determining abundance of major, trace	Unit 5:	Remember, Understand,
and rare earth elements in rocks.	Geochemical	Analysis
5. Geochemical data analysis and	behavior of	
interpretation of common geochemical		

plots.	selected elements	
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	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
CO 1	M				
CO 2		M			
CO 3			M		
CO 4				Н	M
					Н

Paper Code: GLG-HC-2026

Paper Name: STRUCTURAL GEOLOGY

Course Outcome	Unit no. and	Bloom's Taxonomy Level
	Name	
Upon successful completion, the students will	Unit- 1: Structure	Remember, Understand,
have knowledge and skills on—	and Topography	Analysis
	Unit 2: Stress and	Remember, Understand,
1. Accurate geometric description of the	strain in rocks	Analysis
structures observed in natural deformed	Unit 3: Folds	Remember, Understand,
rocks.		Analysis
2. Classification and basic idea about	Unit 4: Foliation	Remember, Understand,
different structural elements, for e.g.	and lineation	Analysis
fold, fault, joint, foliation, lineation	Unit 5: Fractures	Remember, Understand,
3. To use the stereographic projection to	and faults	Analysis
plot planar and linear data.		

I	

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
CO 1	L				
CO 2		M			
CO 3			Н	Н	L
CO 4			Н		

Paper Code: GLG-HC-3016

Paper Name: IGNEOUS PETROLOGY

Course Outcome	Unit no. and	Bloom's Taxonomy Level
	Name	
Upon successful completion, the students will	Unit- 1: Concepts	Remember, Understand,
have knowledge and skills on—	of Igneous	Analysis
	petrology	
	Unit- 2: Forms	Remember, Understand,
1. Origin and nature of magma, Mode of		Analysis
occurrence, texture and structure of	Unit- 3: Phase	Remember, Understand,
igneous rocks and classification of	diagrams and	Analysis
igneous rocks based on mineralogical	petrogenesis	
and chemical criteria.	Unit- 4:	Remember, Understand,
2. Understand Binary and Ternary Phase	Magmatism in	Analysis
diagrams, Magma generation in crust	different tectonic	
and mantle, their emplacement and	settings	
evolution	Unit- 5:	Remember, Understand,

3.	Magmatism in different tectonic	Petrogenesis of	Analysis
	settings and Petrogenesis of Igneous	Igneous rocks	
	rocks		
4.	Identification of igneous rocks, texture		
	and structure in hand specimen and to		
	interprete the environment and process		
	of formation.		

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
CO 1	M				
CO 2		Н	M		
CO 3				M	Н
CO 4					M

Paper Code: GLG-HC-3026

Paper Name: SEDIMENTARY PETROLOGY

Course Outcome	Unit no. and	Bloom's Taxonomy Level
	Name	
Upon successful completion, the students will	Unit- 1: Origin of	Remember, Understand,
have knowledge and skills on—	sediments	
	Unit 2: Sediment	Remember, Understand,
	granulometry	Analysis
1. Process of formation of sedimentary	Unit 3:	Remember, Understand,
rock, diagenesis.	Sedimentary	Analysis

2.	Knowledge on sediment transport,	textures,	
	erosion and deposition	structures and	
3.	Detailed knowledge on sedimentary	environment	
	atructure	Unit 4: Varieties	Remember, Understand,
4.	Paleocurrent analysis	of sedimentary	Analysis
5.	Composition of different sedimentary	rocks	
	rocks.	Unit 5:	Remember, Understand,
		Diagenesis	Analysis

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
CO 1	M				Н
CO 2		Н			
CO 3			Н		
CO 4				Н	

Paper Code: GLG-HC-3036

Paper Name: PALEONTOLOGY

Course Outcome	Unit no.	and	Bloom's Taxonomy Level
	Name		
Upon successful completion, the students will	Unit-1:		Remember, Understand,
have knowledge and skills on—	Fossilization	and	
	fossil record		

	Unit- 2:	Remember, Understand,
1. Basic idea about palaeontology which	Taxonomy and	
includes mode of preservation of fossil	Species concept	
and importance of fossil in in various	Unit- 3:	Remember, Understand,
aspects of geological studies.	Invertebrates	Analysis
2. Morphological characteristics and	Unit- 4:	Remember, Understand,
geological distribution and functional	Vertebrates	
adaptation of various classes	Unit- 5:	Remember, Understand,
3. Evolutionary trend of Man,	Application of	Analysis
Proboscidea from the study of	fossils in	
vertebrate fossils.	Stratigraphy	
4. Importance of fossil		

	Unit 1	Unit 2	Unit 3	Unit 4
CO 1	L			
CO 2		Н		
CO 3			Н	
CO 4				Н

Paper Code: GLG-HC-4016

Paper Name: METAMORPHIC PETROLOGY

Course Outcome	Unit	no.	and	Bloom's Taxonomy Level
	Name			
Upon successful completion, the students will	Unit-		1:	Remember, Understand,
have knowledge and skills on—	Metam	orphis	m:	

		controls and	
		types.	
1.	Metamorphic petrology, types of	Unit- 2:	Remember, Understand,
	metamorphism, depth zone of	Metamorphic	
	metamorphism.	facies and grades	
2.	Facies and facies series of	Unit- 3:	Remember, Understand,
	metamorphism, textures and structures	Metamorphism	Analysis
	structures of metamorphic rock.	and Tectonism	
3.	Characteristic mineral assemblage and	Unit- 4:	Remember, Understand,
	mineral reactions of mafic, basic and	Migmatites and	Analysis
	calcareous rock.	their origin	
4.	Megascopic and microscopic study	Unit- 5:	Remember, Understand,
	(textural and mineralogical) of varoious	Metamorphic	Analysis
	metamorphic rocks	rock associations	

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
CO 1	L				
CO 2		Н			
CO 3			M		
CO 4				Н	M

Paper Code: GLG-HC-4026

Paper Name: STRATIGRAPHIC PRINCIPLES AND INDIAN STRATIGRAPHY

Course Outcome	Unit no. and	Bloom's Taxonomy Level
	Name	
Upon successful completion, the students will	Unit- 1:	Remember, Understand,
have knowledge and skills on—	Principles of	
	stratigraphy	
	Unit- 2: Code of	Remember, Understand,
1. Familiarize the student with	stratigraphic	
stratigraphic principles and	nomenclature	
nomenclature, major stratigraphic units,	Unit 3:	Remember, Understand,
methods of stratigraphic correlation.	Physiographic	
2. Understand basic principles of	and tectonic	
stratigraphy, different types of	subdivisions of	
stratigraphic units.	India	
3. Preliminary concepts of sequence	Unit 4:	Remember, Understand,
stratigraphy, magneto stratigraphy and	Phanerozoic	
seismic stratigraphy.	Stratigraphy of	
4. Detailed stratigraphy of Precambrian in	India	
peninsular India, Phanerozoic	Unit 5: Volcanic	Remember, Understand,
Stratigraphy of India, Volcanic	provinces of India	
provinces of India and Stratigraphic	Unit 6:	Remember, Understand
boundaries.	Stratigraphic	
	boundaries	

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
CO 1	L	Н			
CO 2			Н		

CO 3		Н	
CO 4			M

Paper Code: GLG-HC-4036

Paper Name: HYDROGEOLOGY

Course Outcome	Unit no. and	Bloom's Taxonomy Level
	Name	
Upon successful completion, the students will	Unit 1:	Remember, Understand,
have knowledge and skills on—	Introduction and	
	basic concepts	
	Unit 2:	Remember, Understand,
1. Acquire knowledge about the physical	Groundwater	
and chemical attributes, occurrence,	flow	
movement and exploration of the	Unit 3: Well	Remember, Understand,
groundwater resources.	hydraulics and	Analysis
2. Occurrence of groundwater, water	Groundwater	
bearing properties of formations,	exploration	
aquifer types and aquifer parameters.	Unit 4:	Remember, Understand,
3. Preparation and interpretation of water	Groundwater	Analysis
table maps and analysis of rainfall data.	management	
4. To learn Graphical representation of		Remember, Understand, ,
chemical quality data and water		Analysis
classification (C-S and Trilinear		

diagrams) Simple numerical problems	Remember, Understand,
related to: determination of	Analysis
permeability in field and laboratory,	
Groundwater flow, Well hydraulics etc	

	Unit 1	Unit 2	Unit 3	Unit 4
CO 1	M			
CO 2		Н		
CO 3			Н	
CO 4				M

Paper Code: GLG-HC-5016

Paper Name: ECONOMIC GEOLOGY

Course Outcome	Unit no. and	Bloom's Taxonomy Level
	Name	
Upon successful completion, the students will	Unit 1 Ores and	Remember, Understand,
learn	gangues	
	Unit 2: Mineral	Remember, Understand,
	deposits and	
1. Concept about the process of formation	Classical	
of economic mineral deposit, mode of	concepts of Ore	
formation of ore deposit and	formation	
classification of economic mineral	Unit 3: Mineral	Remember, Understand,
deposit.	exploration	

2.	Exploitation techniques, Remote	Unit 4: Structure	Remember, Understand,
	Sensing, Geophysical and Geochemical	and texture of ore	
	Explorations	deposits	
3.	Megascopic identification of ore	Unit 5: Metallic	Remember, Understand, ,
	minerals: Iron, copper, Manganese,	and Nonmetallic	
	Lead and Zinc, Aluminum, Chromium	ores	
4.	Study of microscopic properties of ore		
	forming minerals (Oxides and		
	sulphides)and assessment of grade of		
	ore and reserve estimation		

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
CO 1	L	Н			
CO 2			Н		
CO 3			Н		
CO 4					M

Paper Code: GLG-HC-5026

Paper Name: GEOMORPHOLOGY

Course Outcome	Unit	no.	and	Bloom's Taxonomy Level
	Name			

Upon successful completion, the students will	Unit 1	Remember, Understand,
learn		
	Unit 2	Remember, Understand,
1. Concept about topics related to		
geomorphology which includes the role	Unit 3:	Remember, Understand,
of climate and tectonics on landscape		Analysis
development, weathering processes,		
mass wasting and hill slope evolution		
2. Endogenic- Exogenic interactions,		
Rates of uplift and denudation,	Unit 4	Remember, Understand,
Tectonics and drainage development,		
Sea-level change, Long-term landscape		
development.		
3. Finally to get an overview of Indian		
Geomorphology, Extraterrestrial		
landforms.		
4. Student will learn reading of	Unit 5	Remember, Understand,
topographic maps, Concept of scale	Omt 3	Analysis
Preparation of a topographic profile,		7 Andrysis
Preparation of longitudinal profile of a		
river, Calculating Stream length		
gradient index, Morphometry of a		
drainage basin		
5. To learn preparation of geomorphic		
map and Interpretation of geomorphic		
processes from the geomorphology of		
the area		

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
CO 1	Н				
CO 2		Н			
CO 3			Н		
CO 4				M	
CO 5					Н

Paper Code: GLG-HE-5016

Paper Name: EXPLORATION GEOLOGY

Course Outcome	Unit no. and	Bloom's Taxonomy Level
	Name	
Upon successful completion, the students will	Unit 1: Mineral	Remember, Understand,
learn	Resources	
	Unit 2:	Remember, Understand,
	Prospecting and	
1. To learn Resource reserve definitions,	Exploration,	
Mineral resources in industries	Unit 3:	Remember, Understand,
2. Learning Prospecting and Exploration	Evaluation of data	
techniques, , Sampling, sub, trenching	Unit 4: Drilling	Remember, Understand,
and drilling, Geochemical exploration.	and Logging	Analysis

3.	Learning Drilling and Logging	Unit 5: Reserve	Remember, Understand, ,
	techniques, Planning of bore holes and	estimations and	Remember, Understand,
	location of boreholes on ground	Errors	
4.	To study Principles of reserve		
	estimation, density and bulk		
5.	To identify anomaly, to prepare		
	Geological cross-section and Models of		
	reserve estimation		

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
CO 1	Н				
CO 2		Н			
CO 3			Н		
CO 4				M	
CO 5					Н

Paper Code: GLG-HC-6016

Paper Name: ENGINEERING GEOLOGY

Course Outcome	Unit no. and	Bloom's Taxonomy Level
	Name	
Upon successful completion, the students will	Unit 1	Remember, Understand,
learn	Unit 2	Remember, Understand,
		Analysis
	Unit 3	Remember, Understand,

1.	To familiarize students about role of		Analysis
	geologist in various engineering		Remember, Understand,
	construction sites.		Analysis
2.	To learn Foundation treatment:	Unit 5: Reserve	Remember, Understand, ,
	Grouting, Rock Bolting and other	estimation and	
	support mechanisms,	errors	
3.	To understand Concept, Mechanism		
	and Significance of, Rock Quality		
	Designation (RQD), Rock Structure		
	Rating (RSR), Rock Mass Rating		
	(RMR), Tunneling Quality Index (Q)'		
4.	To understand Causes, Factors and		
	corrective/Preventive measures of		
	Landslides and Earthquakes		
5.	Learning Computation of reservoir		
	area, catchment area, reservoir capacity		
	and reservoir life, Index properties of		
	rocks, Computation of RQD, RSR,		
	RMR and 'Q'.		

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
CO 1	Н				
CO 2		M			
CO 3			M		
CO 4				Н	
CO 5					Н

Paper Code: GLG-HC-6026

Paper Name: REMOTE SENSING AND GIS

Course Outcome	Unit no. and	Bloom's Taxonomy Level
	Name	
Upon successful completion, the students will	Unit 1:	Remember, Understand,
learn	Photogeology	
	Unit 2: Remote	Remember, Understand,
	Sensing	Analysis
1. The students will get an idea about	Unit 3: Digital	Remember, Understand,
basics of remote sensing,	Image Processing	Analysis
2. They will learn about the application of	Unit 4: GIS	Remember, Understand,
remote sensing in geomorphological,		Analysis
structural and lithological mapping and	Unit 5: GPS	Remember, Understand, ,
natural hazard mitigation and basics of		
GIS and data analysis.		
3. Concepts of GPS, Integrating GPS data		
with GIS and Applications in earth		
system sciences		
4. Understanding Digital Image		
Processing, Image Errors.		
5. GIS integration and Case studies-Indian		
Examples.		
6. Aerial Photo interpretation,		
identification of sedimentary, igneous		
and metamorphic rocks and various		
Aeolian, Glacial, Fluvial and Marine		
landforms		
7. Introduction to DIP and GIS softwares.		

Digital Image Processing exercises	
including analysis of satellite data in	
different bands and interpretation of	
various objects on the basis of their	
spectral signatures.	

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
CO 1	M				
CO 2		Н			
CO 3			Н		
CO 4			M		
CO 5				Н	
CO 6		Н			
C0 7					M

Paper Code: GLG-HC-6036

Paper Name: FUEL GEOLOGY

Course Outcome	Unit no. and	Bloom's Taxonomy Level
	Name	
Upon successful completion, the students will	Unit 1: Coal	Remember, Understand,
learn	Unit 2: Coal as a	Remember, Understand,
	fuel	Analysis
	Unit 3: Petroleum	Remember, Understand,

1.	Mechanism of hydrocarbon generation		Analysis
	from organic material	Unit 4: Petroleum	Remember, Understand,
2.	To comprehend fundamentals of coal,	Reservoirs and	Analysis
	definition and coal forming	Traps	
	sedimentary environments, definition	Unit 5: Other	Remember, Understand, ,
	and	fuels	
3.	To study oil fields of NE India.		
4.	Analytical techniques in coal and its		
	importance in coal classification and		
	utilization for various industries,		
5.	Concept of macerals, its gross		
	diagnostic properties under microscope		
	and implications in climate and		
	paleogeography.		
6.	Getting an idea about Coal Bed		
	Methane (CBM): global and Indian		
	scenario, Underground coal gasification		
	and Coal liquefaction.		

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
CO 1	M				
CO 2		Н			
CO 3			M	Н	
CO 4		Н			
CO 5		Н			
CO 6	_				Н

Paper Code: GLG-HC-6046

Paper Name: INTRODUCTION TO GEOPHYSICS

Course Outcome	Unit no. and Bloom's Taxonomy Level
	Name
Upon successful completion, the students will	Unit 1: Geology Remember, Understand,
learn	and Geophysics
	Unit 2: General Remember, Understand,
	and Exploration Analysis
1. Interrelationship between geology and	geophysics
geophysics, Role of geological and	Unit 3: Remember, Understand,
geophysical data in explaining	Geophysical field Analysis
geodynamical features of the earth.	operations
2. To understand Different types of	Unit 4: Remember, Understand,
geophysical methods - gravity,	Application of Analysis
magnetic, electrical and seismic; their	Geophysical
principles and applications ,Concepts	methods
and Usage of corrections in geophysical	Unit 5: Remember, Understand,
data	Geophysical ,Analysis
3. To study Different types of surveys,	anomalies
grid and route surveys, profiling and	
sounding techniques Scales of survey,	
Presentation of geophysical data	
4. To learn Application of Geophysical	
method in Regional geophysics, oil and	
gas geophysics, ore geophysics,	
groundwater geophysics, engineering	
geophysics etc.	

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
CO 1	Н	M			
CO 2			L		
CO 3			Н		
CO 4				Н	Н