

Dicipline: MINING	Semester: 3rd	Name of the Teaching Faculty: Subhrajit Khuntia	
Subject: MINE GEOLOGY	No of Days/Week Class Allotted: _____	Semester From date: 15/09/22 To date: 22/12/22	No. of Weeks: 14

WEEK	Class Day	Theory Topics
From 15/09/22 to 16/09/22	1st	Introduction to Geology
	2nd	Weathering & its causes
	3rd	Mechanical, chemical & organic weathering
	4th	Frost Shattering, Fragmentation, Formation of Cracks
	5th	
From 19/09/22 to 24/09/22	1st	Various sketches of Erosional actions by wind.
	2nd	Sketches of depositional land forms produced by wind.
	3rd	Neat sketches of Erosional actions by river.
	4th	Sketches of depositional land forms produced by river.
	5th	
From 26/09/22 to 01/10/22	1st	How glacier is formed & Iceberg is formed.
	2nd	Difference between Glacier & Iceberg.
	3rd	Erosional features produced by glacier
	4th	Depositional features produced by glacier
	5th	

WEEK	Class Day	Theory Topics
From 10/10/22 to 15/10/22	1st	Definition of moraine, its formation
	2nd	Types of moraine (lateral, medial, terminal)
	3rd	Description of formation of these types of moraine.
	4th	Introduction to petrology, topography, plate tectonic.
	5th	
From 17/10/22 to 22/10/22	1st	Definition of Rock & mineral, their distinctive properties.
	2nd	Sedimentary rock (Example, mode of occurrence)
	3rd	Sequence of mutation of original rocks into sedimentation.
	4th	Sedimentary rocks deposits & most important sedimentary rock.
	5th	
From 24/10/22 to 29/10/22	1st	Igneous rocks description, formation
	2nd	Typical igneous rocks example & its deposits.
	3rd	Metamorphic rock (Metamorphism, Texture)
	4th	various Texture & Structure of Igneous rocks.
	5th	

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WEEK	Class Day	Theory Topics		
From 01/11/22 to 05/11/22	1st	Important structure of Sedimentary rocks		
	2nd	Sketches of Sedimentary rocks.		
	3rd	Various structure bound on metamorphic rocks.		
	4th	Introduction to Structural Geology		
	5th			
From 07/11/22 to 12/11/22	1st	Dip, true dip & apparent dip		
	2nd	Strike, angle of dip & direction of Dip.		
	3rd	Folds, classification of Folds		
	4th	Description of types of Folds.		
	5th			
From 14/11/22 to 19/11/22	1st	Fault & Types of fault.		
	2nd	Unconformity & various types of Un-conformity.		
	3rd	Joints, Its various types.		
	4th	Introduction to Crystallography		
	5th			

WEEK	Class Day	Theory Topics
From 21/11/22 to 26/11/22	1st	Genesis of Crystallography
	2nd	Definition of Symmetry & types of crystals.
	3rd	Various Symmetry elements.
	4th	Miller indices for two dimensional objects.
	5th	
From 28/11/22 to 03/12/22	1st	Miller indices for three dimensional objects.
	2nd	Face, edge, solid angle, interfacial angle, distortion, zone, zone axis.
	3rd	Various forms present in the normal class of Isometric.
	4th	Concept of bonding in solids.
	5th	
From 05/12/22 to 10/12/22	1st	Crystal or crystalline solid, concept of Crystallinity (Crystalline, polycrystalline, Amorphous)
	2nd	Crystallography axes, Angles of Crystallographic axes.
	3rd	Define mineral, occurrence of mineral
	4th	Describe the physical properties of mineral
	5th	

ARYAN SCHOOL OF ENGINEERING & TECHNOLOGY

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WEEK	Class Day	Theory Topics
From 12/12/22 to 17/12/22	1st	Classification of descriptive mineralogy
	2nd	Various optical properties of minerals.
	3rd	Silicate structures along with diagrams.
	4th	Polymerorphism, Isomorphism, Pseudomorphism.
	5th	
From 19/12/22 to 22/12/22	1st	Classification of minerals (Oxide, Fluoride, Sulphide).
	2nd	Mineralogy and physical properties of Olivine.
	3rd	Mineralogy and physical properties of Quartz.
	4th	Mineralogy and physical properties of Feldspar.
	5th	
	1st	Mineralogy and physical properties of Pyroxene group of minerals.
	2nd	
	3rd	
	4th	
	5th	