

GOVERNMENT POLYTECHNIC JAJPUR
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DEPARTMENT OF MINING ENGINEERING

LESSON PLAN

Discipline:	Semester:3RD	Name of the Teaching faculty: MALAYA RANJAN JENA
Subject: MINING GEOLOGY-I	No of Days/Week class allotted: 4	Semester from Date: 15/09/22 To Date: 22/12/22 No of weeks: 15
Week	Class Day	Topics
1st	1st	Define weathering and erosion.
	2nd	Explain with suitable sketches the erosional and depositional land forms produced by Wind.
	3rd	Explain with suitable sketches the erosional and depositional land forms produced by Wind.
	4th	Explain with suitable sketches the erosional and depositional land forms produced by Wind.
2nd	1st	Explain with neat sketches the erosional and depositional land forms produced by River.
	2nd	Explain with neat sketches the erosional and depositional land forms produced by River.
	3rd	Explain with neat sketches the erosional and depositional land forms produced by River.
	4th	Differentiate between Glacier and Iceberg.
3rd	1st	Describe the erosional and depositional features produced by glacier.
	2nd	Describe the erosional and depositional features produced by glacier.
	3rd	Describe the erosional and depositional features produced by glacier.
	4th	Define moraine. Describe the different type of moraine with sketches.
4th	1st	Define moraine. Describe the different type of moraine with sketches
	2nd	Define a Rock. Distinguish between a rock and a mineral.
	3rd	Define Igneous, Sedimentary, Metamorphic rocks.
	4th	Define Igneous, Sedimentary, Metamorphic rocks.
5th	1st	Describe the various textures and structures found in Igneous rocks.
	2nd	Describe the various textures and structures found in Igneous rocks.
	3rd	Describe the various textures and structures found in Igneous rocks.
	4th	Describe some important structures of sedimentary rocks along with neat sketches.
6th	1st	Describe some important structures of sedimentary rocks along with neat sketches.
	2nd	CLASS TEST 1 , Previous year questions, quiz test

	3rd	Describe various structure found in metamorphic rocks.
	4th	Describe various structure found in metamorphic rocks.
7th	1st	Define Dip. Distinguish between true dip and apparent dip.
	2nd	Define strike.
	3rd	Define folds. Classify folds and describe them.
	4th	INTERNAL - I
8th	1st	Define faults. Describe the various types of fault.
	2nd	Define unconformity. Describe the various type of unconformity with neat sketches.
	3rd	Define joints. Describe various joints.
	4th	Define a crystal.
9th	1st	Explain Miller's indices.
	2nd	Explain Miller's indices.
	3rd	Explain Miller's indices.
	4th	Describe the symmetry elements and forms present in the normal class of Isometric system.
10th	1st	Describe the symmetry elements and forms present in the normal class of Isometric system.
	2nd	Describe the symmetry elements and forms present in the normal class of Isometric system.
	3rd	Describe the symmetry elements and forms present in the normal class of Isometric system.
	4th	Define a mineral.
11th	1st	Enumerate and describe the physical properties of minerals.
	2nd	Enumerate and describe the physical properties of minerals.
	3rd	Describe various optical properties of minerals.
	4th	Describe various optical properties of minerals.
12th	1st	Explain briefly the sillicate structures along with diagrams.
	2nd	Explain briefly the sillicate structures along with diagrams.
	3rd	Explain briefly the sillicate structures along with diagrams.
	4th	Explain briefly the sillicate structures along with diagrams.
13th	1st	CLASS TEST- 2 , Previous year questions, quiz test
	2nd	Classify minerals.
	3rd	Describe mineralogy and physical properties of Olivine group of minerals.
	4th	Describe mineralogy and physical properties of Quartz group of minerals.
14th	1st	Describe mineralogy and physical properties of Feldspar group of minerals.
	2nd	Describe mineralogy and physical properties of Pyroxene group of minerals.
	3rd	Previous year questions, quiz
	4th	Previous year questions, quiz

15th	1st	REVISION, Doubt clearing class (DC)
	2nd	REVISION, Doubt clearing class (DC)
	3rd	INTERNAL - II
	4th	REVISION
RECOMMENDED BOOKS		
SL NO.	Name of Author	Title of Books
1	Perbin Singh	Engineering Geology
2	P.k. Mukharjee G.B. Mohapatra	The text book of Geology
3	S. K. GHOSH	Structural Geology
4	G.B. Mohapatra	Physical Geology
5	Dana's	Text book of Mineralogy
	Rutley's	Elements of Mineralogy
6	B.S. Rathhore	Basic of Crystallography and Mineralogy

Malaya Ranjan Jena.
Signature of Faculty