SYNERGY SCHOOL OF ENGINEERING, DHENKANAL

DEPARTMENT OF MINING ENGINEERING

LESSON PLAN

Discipline MINING	Semester:3RD	Name of the Teaching faculty: TAPAS SAMAL
Subject: MINING GEOLOGY-I	No of Days/Week class alloted:4	Session- 2024-25 No of weeks:15 START DATE :- 1-7-24 END DATE :- 8-11-24

Week	Class Day	Topics
1st	1st	Define weathering and erosion
	2nd	Explain with suitable sketches the erosional and deposional land forms produced by Wind.
	3rd	Explain with suitable sketches the erosional and deposional land forms produced by Wind.
	4th	Explain with suitable sketches the erosional and deposional land forms produced by Wind.
2nd	1st	Explain with neat sketches the erosional and deposional land forms produced by River.
	2nd	Explain with neat sketches the erosional and deposional land forms produced by River.
	3rd	Explain with neat sketches the erosional and deposional 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 moraine.Describe the different type of moraine with sketches
	3rd	Define Igneous,Sedimentary,Metamorphic rocks
	4th	Describe the varlous textures and structures found in Igneous rocks
5th	1st	Describe the various textures and structures found in Igneous rocks
	2nd	INTERNAL-I
	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	
	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	
8th	1st	Define faults.Describe the various types of fault.
	2nd	Define joints.Describe various joints
	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	CLASS TEST
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	Enumerate and describe the physical properties of minerals.
	4th	Describe various optical properties of minerals.
12th	1st	Describe various optical properties of minerals.
	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	Classify minerals
	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
	1st	Describe mineralogy and physical properties of Feldspar group of minerals

14th	2nd	Describe mineralogy and physical properties of Pyroxene group o minerals.
	3rd	INTERNAL-I
	4th	Previuos year questions,quiz
15th	1st	REVISION,Doubt clearing class (DC)
	2nd	REVISION,Doubt clearing class (DC)
	3rd	REVISION
	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

Signature of Faculty