

Lesson Plan

Name of the Faculty: Ajay Sharma

Discipline: CIVIL Engineering

Semester: IIIrd

Subject: Engineering Geology

Work Load (Lecture/Practical) per week (in hours): Lectures- , Practicals-

Week	Theory		Practical	
	Lecture day	Topic (including assignment/test)	Practical day	Topic
1 st	1 st	Definition Of Engineering Geology	1 st	
	2 nd	object, scope and sub division of geology		
	3 rd	The interior of the earth		
	4 th	crust, mantle and core		
2 nd	5 th	Importance of geology in Civil Engineering projects	2 nd	
	6 th	Different branches of geology		
	7 th	Physical Geology		
	8 th	Origin of earth		
3 rd	9 th	external and internal geological forces causing changes	3 rd	
	10 th	erosion of the surface of the earth		
	11 th	Geological work of ice		
	12 th	Geological work of Water		
4 th	13 th	Geological work of Wind	4 th	
	14 th	Soil profile and its importance		
	15 th	Earth movement, earthquakes and volcanoes		
	16 th	Mineralogy and Petrology		
5 th	17 th	Definition of mineral and rocks	5 th	
	18 th	Classification of minerals		
	19 th	physical and chemical properties of minerals		
	20 th	Classification of rocks. Mineral composition		
6 th	21 st	Textures, structure and origin of Igneous	6 th	
	22 nd	Sedimentary and Metamorphic rocks		
	23 rd	Structural Geology and general stratigraphy of India		
	24 th	Elementary idea about outcrop		

7 th	25 th	dip and strike, bedding plane	7 th	
	26 th	fold, fault, joint		
	27 th	Unconformity and its types		
	28 th	General principles of stratigraphy of India		
8 th	29 th	their characteristics	8 th	
	30 th	UNIT 2 TEST		
	31 st	Geological Investigations		
	32 nd	Preliminary geological investigations		
9 th	33 rd	Use of geological maps and interpretation of data	9 th	
	34 th	geological reports, hydrogeology		
	35 th	water table, springs and artesian well		
	36 th	ground water in engineering projects		
10 th	37 th	artificial recharge of ground water. Elementary ideas of geological investigation	10 th	
	38 th	Remote sensing techniques for geological and hydrological survey and investigation		
	39 th	Geological condition and their influence on the selection		
	40 th	location, type and design of dams		
11 th	41 st	reservoirs, tunnels	11 th	
	42 nd	highways, bridges		
	43 rd	Geological definitions		
	44 th	aspects of landslides and Hill-slope stability		
12 th	45 th	UNIT 3 TEST	12 th	
	46 th	Improvement of foundation rocks		
	47 th	Precaution and treatment against faults		
	48 th	joints and ground water		
13 th	49 th	Retaining walls and other treatments	13 th	
	50 th	Geology and environment of earth		
	51 st	Engineering geology and its case study		
	52 nd	water table, geology as a subject, flood plane deposits		
14 th	53 rd	deltas, waterfalls, lakes etc. Earth environment	14 th	
	54 th	global warming and effects		
	55 th	Earth environment		

	56th	UNIT 4 TEST		
15th	57th	UNIT 1 REVISION	15th	
	58th	UNIT 2 REVISION		
	59th	UNIT 3 REVISION		
	60th	UNIT 4 REVISION		