



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)
Dundigal, Hyderabad - 500 043

CIVIL ENGINEERING ASSIGNMENT QUESTIONS

Course Name	:	ENGINEERING GEOLOGY
Course Code	:	A50118
Class	:	III-I - B. Tech
Branch	:	CIVIL ENGINEERING
Year	:	2017-2018
Course Faculty	:	Mr Y. Ravi Kumar, Assistant Professor, Civil Engineering Ch. Bala Krishna, Assistant Professor, Civil Engineering

OBJECTIVES

To introduce students to the basic concepts which are used for construction purpose to:

- Know case histories of failures of civil engineering constructions due to geological drawbacks and importance of geology from civil engineering point of view.
- Learn about structural geology, mineralogy and petrology.
- Learn about minerals their physical properties and chemical composition.
- Learn how geological structures like folds, faults, joints and unconformities are formed their advantages and disadvantages.
- Know suitable site considerations for construction of dams and reservoirs.

S. No	QUESTION	Blooms Taxonomy Level	Course Outcom e
UNIT-I INTRODUCTION AND WEATHERING OF ROCKS			
1	What is mean by engineering geology?	Remember	1
2	Write a short note on Environmental Geology	Remember	2
3	Write a short note about Rock mechanics	Remember	4
4	Write a short note about Geomechanics	Remember	4
5	Distinguish between Mining Geology and Petroleum Geology	Remember	2
6	Define deflation.	Remember	1
7	Write a short note on Pot holes	Understand	2
8	Write a short note on Attrition	Understand	4
9	What is mean by physical weathering?	Remember	1
10	Define denudation.	Remember	1
UNIT-II MINERALOGY			
1	Mention the composition and properties of Quartz	Remember	5
2	Mention the composition and properties of Feldspars	Remember	5
3	Mention the composition and properties of Mica	Remember	6
4	Mention the composition and properties of Calcite	Remember	6
5	Mention the composition and properties of Kyanite	Remember	6
6	Mention the composition and properties of Chlorite	Remember	7

7	Mention the composition and properties of Talc	Remember	6
8	Mention the composition and properties of Gypsum	Remember	7
9	Mention the composition and properties of Clay Minerals	Remember	8
10	Mention the composition and properties of Bauxite.	Remember	8
UNIT-III STRUCTURAL GEOLOGY			
1	Write briefly regarding Unconformities	Understand	8
2	Write briefly regarding Disconformity	Understand	8
3	Write briefly regarding Non conformity	Understand	8
4	Write briefly regarding Unloading joints	Understand	9
5	Write briefly regarding Cooling joints	Understand	9
6	Write briefly regarding Folds	Understand	9
7	Write briefly regarding Columnar joints	Understand	9
8	Write briefly regarding Angular unconformity	Understand	9
9	Write briefly regarding radial faults	Understand	9
10	Joints due to the regional deformation	Understand	9
UNIT-IV GEOLOGY OF DAMS AND RESERVOIRS			
1	Seismic methods.	Remember	11
2	Geothermal methods.	Remember	11
3	Gravity methods.	Remember	11
4	Grating methods	Remember	11
5	Geothermal methods.	Remember	11
6	Brief on the structure of dam with a neat sketch.	Remember	11
7	Gravity dams.	Remember	11
8	Buttress dams.	Remember	11
9	Arch dams.	Remember	11
10	Earth dams.	Remember	11
UNIT-V TUNNELS			
1	Purposes of tunnelling.	Understand	12
2	Lining of tunnels.	Remember	11
3	Over break.	Remember	11
4	Different purposes of tunnels	Remember	11
5	Tunnels faulted strata	Remember	11
6	Tunnels in folded strata	Remember	11
7	Tunnels in Faulted formations	Remember	12
8	Write the importance of ground water condition	Understand	12
9	What are mining substances	Remember	11
10	Define folds and faults	Remember	11

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