Code No. 6012 / S

FACULTY OF ENGINEERING

B.E. 2/4 (Civil) I – Semester (Suppl.) Examination, July 2014

Subject: Engineering Geology

Time: 3 Hours **Max.Marks: 75**

Note: Answer all questions from Part A. Answer any five questions from Part B.

PART – A (25 Marks)

1	Define the terms strike and dip of fold.	2
2	Mention the factors affecting the strength, hardness and toughness of rock.	2
3	How are joints different from fault?	2
4	_____ is an intermediate rock between Gabbro and Basalt.	2
5	Define porosity, permeability and perched water table.	3
6	Mention the essential and accessory minerals of Basalt and Slate.	3
7	Define the term lineation and foliation.	3
8	Fossils occur in _____ rocks.	2
9	The hardness of quartz mineral on Moh's Scale is (a) 4 (b) 3.5 (c) 7 (d) 10	2
10	Correlate the following metamorphic rocks with their parent rock.	4

Metamorphic Rock	Parent Rock
1) Slate	A) Limestone
2) Quartzite	B) Granite
3) Gneiss	C) Shale
4) Marble	D) Sandstone

PART – B (50 Marks)

11	a)	How do you distinguish between igneous and metamorphic rocks in the field?	6
	b)	Mention the important clay minerals.	4
12		Describe various types of dams with neat sketches. Explain the reasons for the failure of the dam.	10
13	a)	Define fold. Describe the various types of folds with neat sketches.	5
	b)	How do you assess the test of weathering?	5
14	a)	How do you minimize the effect of earthquake on the reservoir?	5
	b)	Describe the soil profile and types of soils.	5
15	a)	Explain the causes and effects of landslides.	5
	b)	Define aggregates and mention the types of aggregates used in construction.	5
16	a)	Define rock mechanics. Describe various engineering properties of rocks.	5
	b)	Granite is a suitable rock for construction _____. Explain.	5
17		Explain the principle and procedure involved in Wenner and Schlumberger methods for locating ground water.	10

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