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53 (CE 305) ENGE

2017

ENGINEERING GEOLOGY

Paper : CE 305

Full Marks : 100

Time : Three hours

The figures in the margin indicate full marks for the questions.

Answer question number 1 and any four from the rest.

1. Explain the following terms : 20
- (a) Crystal system
 - (b) Building stones
 - (c) Shock waves
 - (d) Apparent dip
 - (e) Yielding capacity of igneous rocks
 - (f) Folds
 - (g) Minerals
 - (h) Joints

Contd.

- (i) Outcrop
- (j) Stratification.
2. (a) How are sedimentary and igneous rocks formed ? Classify sedimentary rocks according to their origin. 12
- (b) Define metamorphism and its types. By which metamorphism gneiss are formed ? 8
3. (a) Define Geology and its types. 8
- (b) Describe the geological work done by wind. 8
- (c) What do you understand by the term rock weathering ? 4
4. (a) How does the presence of structural features affect the storage area and the foundation site of a dam ? 10
- (b) Explain the origin, age and interior of the earth. 10

5. (a) What are the different types of sliding surfaces that occur in nature during earth and rock slides depending on the geologic formation ? 12
- (b) Give some of the methods we can use to strengthen existing earth slopes that are not very stable. 8
6. (a) What is meant by magnitude and intensity of earthquake ? What are the scales used to measure earthquake ? 12
- (b) What are the effects due to earthquake to be considered in civil engineering structures ? 8
7. What are faults ? Discuss various types of faults. 20
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