

SE Civil III - CBSGS

30.5.17

Engg. Geology

REVISED COURSE

(3 Hours)

[Total Marks: 80]

- N.B. 1. Question No. 1 is compulsory
 2. Attempt any three questions out of remaining five questions.
 3. Draw neat labelled diagrams wherever necessary.
 4. All the parts of a question should be grouped together.
 5. Figures to the right indicate marks

- Q.1a Write the identifying properties and economic use of the following minerals- 5
- Calcite
 - Graphite
 - Biotite
 - Orthoclase
 - Corundum
- Q.1b Define the following terms- 5
- Engineering Geology
 - Exfoliation
 - Seismograph
 - Delta
 - Cone of Depression
- Q.1c Draw a neat sketch of the following- 5
- Pedestal/mushroom rock
 - Columnar joint
 - Dyke
 - Box fold
 - Alluvial Fan
- Q.1d Name the following- 5
- Boundary between crust and mantle
 - A texture of rock where all the constituent grains are of equal size
 - Water present in the pore spaces of rock beneath the earth surface
 - The type of metamorphism where pressure plays the dominant role
 - The depression at the mouth of volcano
- Q.2(a) Describe various landforms created by glaciers. 10
- (b) What is chemical weathering? 5
- (c) Briefly describe internal structure of Earth 5
- Q.3(a) Describe various textures of Igneous rocks. 10
- (b) How sedimentary rocks are formed, describe any two structures of these rocks. 5
- (c) Describe various agents of metamorphism 5
- Q.4(a) What are Faults? Give a brief account of various types of Faults in the rocks. 10
- (b) What is order of superposition? 5
- (c) What are the various causes of landslide? 5

TURN OVER

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10

- Q.5(a) Describe the seismic method of geophysical investigation 5
(b) Describe the favourable and unfavourable geological structures while choosing the alignment of tunnel. 10
(c) Describe the zones of groundwater. 5

- Q.6 Differentiate between any 5 of the following-
(i) Confined and unconfined aquifer
(ii) Overtuned and recumbent fold
(iii) Angular unconformity and Nonconformity
(iv) Central eruption and Fissure eruption
(v) Thermal and Dynamic Metamorphism
(vi) Strike and streak
(vii) Fracture and cleavage

5X4=20