

**R18**

Code No: 153AV

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**B.Tech II Year I Semester Examinations, October - 2020**

**ENGINEERING GEOLOGY**

**(Civil Engineering)**

**Time: 2 hours**

**Max. Marks: 75**

**Answer any five questions  
All questions carry equal marks**

- 1.a) Describe in detail the failures of major civil engineering structures due to geological drawbacks. [8+7]  
b) Write about how rock weathering affects major civil engineering structures. [8+7]
- 2.a) Write a note on importance of geology from Civil Engineering point of view. [8+7]  
b) Write about the impact of weathering conditions on dam site selection. [8+7]
- 3.a) Describe the physical properties including special and distinguishing properties of the following minerals. i) Muscovite ii) Olivine iii) Chlorite iv) Magnetite.  
b) What are the igneous rocks and sedimentary rocks? How are they formed? Briefly describe classification of these rocks. [8+7]
- 4.a) What is a mineral? Describe briefly the physical properties of minerals with suitable examples.  
b) Describe the megascopic study of the following rocks: i) Granite ii) Basalt iii) Limestone iv) Sandstone v) Gneiss vi) Slate. [7+8]
- 5.a) Define fault and write in detail the classification of faults with neat sketches.  
b) Explain in detail various types of ground water and geological control on ground water movement. [7+8]
- 6.a) Define joints and its important types with case studies.  
b) Write short notes on: i) Water table ii) common types of ground water. [8+7]
- 7.a) Explain about Causes and effects of Earthquakes.  
b) Describe the improvement of competence of sites by grouting. [8+7]
- 8.a) Explain about any two dam failures of the past in detail.  
b) Describe elaborately various geological considerations for successful tunneling. [7+8]

---ooOoo---