

Code No: R22015

R10

SET - 1

II B. Tech II Semester Regular Examinations April/May – 2013

ENGINEERING GEOLOGY

(Civil Engineering)

Time: 3 hours

Max. Marks: 75

Answer any **FIVE** Questions
All Questions carry **Equal** Marks
~~~~~

1. Explain the branches of Geology. Give their importance geology in civil engineering.
2. Write the physical properties, crystal system, chemical composition and uses of following minerals.  
a) Quartz group                      b) Mica group                      c) Garnet group
3. What are the types of rocks? Write their characters and the importance in constructions.
4. What are the parts of faults? Give their types with sketches. and the role of importance in civil engineering.
5. Define the terms porosity, permeability, and their Classification of rocks based on porosity, permeability and types.
6. What are the branches of geophysics? Give their necessity and importance of Geophysical investigations.
7. Explain the effects of associated of geological structures for construction of Dams with sketches
8. Write the following:
  - a) Purposes of tunneling
  - b) Effects of tunneling
  - c) Lining of tunnels
  - d) Economic aspects of tunneling

Code No: R22015

**R10**

**SET - 2**

**II B. Tech II Semester Regular Examinations April/May – 2013**  
**ENGINEERING GEOLOGY**  
(Civil Engineering)

Time: 3 hours

Max. Marks: 75

---

Answer any **FIVE** Questions  
All Questions carry **Equal** Marks

~~~~~

1. Explain the role of importance of geology in civil engineering structures.
2. Define the term mineral, crystal and give their mode of formation of minerals and importance in civil engineering.
3. Enumerate the structures and textures of igneous rocks with sketches
4. What are the parts of joints? Give their types with sketches and the role of importance in civil engineering.
5. What is water table? Explain the types of waters of zone of aeration and zone of saturation
6. What are the geophysical methods? Give their classification.
7. What are the types of Dams? And give their geological importance for successful selection of Dam site
8. Explain the importance and associated geological structures for successful tunneling with sketches.

Code No: R22015

R10

SET - 3

II B. Tech II Semester Regular Examinations April/May – 2013

ENGINEERING GEOLOGY

(Civil Engineering)

Time: 3 hours

Max. Marks: 75

Answer any **FIVE** Questions
All Questions carry **Equal** Marks

~~~~~

1. What are the geological agents? Explain the terms of erosion, denudation etc related aspects of weathering.
2. Write the following:
  - a) Form and types
  - b) streak
  - c) Lustre
  - d) Cleavage
  - e) Fracture
  - f) Hardness
  - g) Transparency
3. Explain the follow types of sand stones based on size, shape, mineral composition, structure, types of Shales, types of Lime stones, conglomerates, laterites.
4. What are the parts of unconformable and their types of old, how to recognition of unformutier in the field.
5. Explain the following
  - a) Earthquake waves
  - b) Intensity of earthquakes
  - c) Magnitude of Earthquake
  - d) Shield areas.
6. Write the Principle, Parameters, Equipment and applications of Gravity and Magnetic Methods
7. Enumerate the stages of preliminary and detailed investigation in the selection of a Dam site.
8. Write the importance of rock and associated of ground water conditions for successful tunneling with sketches.

Code No: R22015

**R10**

**SET - 4**

**II B. Tech II Semester Regular Examinations April/May – 2013**

**ENGINEERING GEOLOGY**

(Civil Engineering)

Time: 3 hours

Max. Marks: 75

---

Answer any **FIVE** Questions  
All Questions carry **Equal** Marks

~~~~~

1. Explain the geological work of River erosion, River transport, River deposition with sketches. And their importance in Civil Engineering.
2. Write the physical properties crystal system, chemical composition and uses of following minerals.
a) Albite b) kyanite c) Graphite d) chromite
3. Write the classified of metamorphic rocks with their types structures and texture.
4. What are the parts of folds, give their types with sketches and the role of importance in civil engineering
5. What are landslides? Give their classification of earth movements. Explain the internal causes, immediate causes and effects of landslides.
6. Explain the principle, controlling factors of Electromagnetic Method of self-potential and Induced polarisation Method.
7. What is the purpose of dams? Explain the geological considerations in the selection of a dam site with respect to rocks.
8. Igneous sedimentary, metamorphic rock in which type of rock are suitable for tunneling give the reasons, effects etc.