

Code No: P31012**RA****Set No: 1**

III B.Tech. I Semester Regular Examinations, November/December - 2012

ENGINEERING GEOLOGY

(Civil Engineering)

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

Answer any FIVE Questions
All Questions carry equal marks

1. Discuss the Importance of geology for a Civil Engineer. Give examples.
2. Write notes on the following:
 - (a) Importance of the Minerals.
 - (b) Physical Properties of Minerals.
3. Define the subject petrology and discuss its application in civil engineering point of view.
4. Write an account on the importance of structural geology in civil engineering constructions. Give examples.
5. Write an essay on the nature and types of groundwater occurrence in subsurface.
6. Discuss in detail the importance of geophysical studies in Civil Engineering projects. Give suitable examples.
7. Discuss the factors that control the stability of a dam. Give examples.
8. Discuss in detail the purpose of tunneling and add a note on geological controls that influence tunnel construction.

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Code No: P31012**RA****Set No: 2**

III B.Tech. I Semester Regular Examinations, November/December - 2012

ENGINEERING GEOLOGY

(Civil Engineering)

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

Answer any FIVE Questions
All Questions carry equal marks

1. Give some case histories of geological problems that effected civil engineering construction.
2. Give the physical properties and chemical composition for the identification of the following minerals.
 - (a) Feldspar
 - (b) Quartz
 - (c) Augite
 - (d) Biotite
 - (e) TalkCalcite
3. Write an account on the basis for the classification of rocks in different types. Give examples.
4. Describe the following:
 - (a) Outcrop
 - (b) Strike and Dip
 - (c) Geological Structures
5. Write an essay on the geological controls of groundwater occurrence, movement and quality.
6. Write notes on the following.
 - (a) Gravity Methods
 - (b) Magnetic Methods
7. Write an account on the role of geology in dam site selection. Give examples.
8. What are the most important litho logical and structural controls in a tunnel construction?

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Code No:P31012**RA****Set No: 3**

III B.Tech. I Semester Regular Examinations, November/December - 2012

ENGINEERING GEOLOGY

(Civil Engineering)

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

Answer any FIVE Questions
All Questions carry equal marks

1. Discuss the process of weathering of rocks. Add a note on the problems due to weathering in civil engineering constructions.
2. Write an account on the physical properties and occurrence of the following economic minerals.
 - (a) Pyrite
 - (b) Hematite
 - (c) Magnetite
 - (d) Chlorite
 - (e) Gelina
3. Write an account on most common structures and textures exhibited by igneous, sedimentary and metamorphic rocks.
4. Write an account on the structures associated with the rocks such as folds, faults, unconformities and joints.
5. Write notes on the following.
 - (a) Methods of Groundwater Exploration
 - (b) Earthquakes
6. Write notes on the following.
 - (a) Electrical Methods
 - (b) Seismic Methods
7. Analyze the possible reasons for failure of dams. Substantiate your answer with relevant examples.
8. Write notes on the following.
 - (a) Types of Tunnels
 - (b) Lining in Tunnels

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Set No: 4

III B.Tech. I Semester Regular Examinations, November/December - 2012

ENGINEERING GEOLOGY

(Civil Engineering)

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

Answer any FIVE Questions
All Questions carry equal marks

1. Write an account on the importance of physical geology and structural geology in civil engineering constructions.
2. Write an account on the physical properties and occurrence of the following economic minerals.
 - (a) Pyrolusite
 - (b) Graphite
 - (c) Magnesite
 - (d) Bauxite
3. Write an account on physical properties, mineral composition and distinguishing features of the following rocks.
 - (a) Granite
 - (b) Dolerite
 - (c) Basalt
 - (d) Pegmatite
 - (e) Laterite
 - (f) Gneiss
4. Write notes on the following:
 - (a) Folds and Faults
 - (b) Strike and Dip
 - (c) Soils
5. Write notes on the following.
 - (a) Seismic Waves and Seismic Belts
 - (b) Land Slides
 - (c) Porosity and Permeability
6. Discuss the methodology involved in the design and implementation of electrical resistivity survey. Give a case study.
7. Write notes on the following:
 - (a) Favourable conditions for the reservoir construction.
 - (b) Types of Dams
8. Write notes on the following.
 - (a) Tunneling in structurally disturbed zone
 - (b) Advantages and disadvantages of tunnels

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