Subject name : Applied geology

 Subject code : AG2211

B.E. –Civil Engineering

 UNIT IPART-A:

1.What is Exfoliation?

2.Differentiate between water table & perched water table.

3.Define the term aquifer & Mention its types.

4.What is meant by an subduction zone: What is its significance.

5.What is difference between an aquifer & an aquiclude?

6.Write short note on mercalli scale.

7.Explain the term plate tectonics & its significance.

8.List and describe two coastal protection structures.

9.Describe the interior of the earth.

10.What is meant by chemical weathering?

11.What is meant by petrology

12.Explain the terms:1. Confined aquifer.2. Unconfined aquifer.

PART –B:

1)Describe the earth structure & composition with neat diagram.

2)Give an account on mode of occurrence & prospecting of ground water.

3)Describe the detail about plate tectonics & continental drift.

4)Write an essay on “ Weathering of rocks & its importance in Engg coal structing”

5)Give an detailed account of the earthquake belts in India.

6)Write a short note of geology & geo technical engineering in coastal defence.

7)Describe the physical & chemical weathering process? Add a note on weatheringgrade & its role in engineering projects.

8)Explain the work of rivers, winds, sea & their engineering importance.

 UNIT IIPART –A:

1)Write the symmetry elements of normal class of isometric system?

2)Write the hardness of calcite and apatite minerals?

3)What is moh’s scale of hardness of minerals?

4)With example from the mineral kingdom, describe the characteristic of orthorhombic system and list its symmetry elements?

5)List the important properties and uses of calcite?

6)Name at least four clay minerals and their important engineering properties.

7)Explain the properties & uses of calcite.

8)What are the symmetry elements of triclinic system of crystallization?

9)Give the hardness of mica.

10)Write the characteristics of isometric system.

11)What is meant by ore minerals?

12)List the properties of petroleum bearing reservoir rocks.

PART-B:

1.Describe the various physical properties of minerals give examples from theminerals kingdom for each of the property

.2.Write the physical properties of 1.Quartz Family 6. Muscorite2.Feldsper Family 7. Calcite3.Augite 8. Garnet4.Hornblende5.Biotite3.Write a short note on1.Coal and Petroleum –Their origin & Occurrence in India?4.Give a detailed account of the chemical composition physical properties, origin,occurrence, engineering behavior & uses of the clay minerals.

UNIT IIIPART –A

1.Describe any two metamorphic rocks.

2.Describe the composition, texture, characteristics, occurrence & uses of ‘Black Granite’.

3.What are the factors controlling the specific gravity, porosity &strength of rocks.

4.List the tests to be carried out to determine the properties of building stones.

5.What is black granite? List its uses?

6.How igneous rocks are classified according to their occurrences?

7.Bring out the essential differences between the engineering properties of granite& slate.

8.What are the textures of sedimentary rocks?

9.What is dolerite? List its uses.

10.What are igneous rocks? Give a suitable examine.

11.What are Sedimentary rocks? Give a suitable example.

12.What are metamorphic rocks? Give a suitable example.

13.What is ductility of rocks?

14.Write about the mineral composition, origin & properties & uses of basalt.