21/11/13

Roll No. | | | | | | | | | | |

B.E (Full Time) DEGREE END SEMESTER EXAMINATIONS, NOV / DEC 2013

GEOINFORMATICS ENGINEERING

Third Semester

AG 8303 GEOLOGY FOR GEOINFORMATICS

(Regulation 2012)

Time: 3 Hours | Answer ALL Questions | Max. Marks 100

PART-A (10 x 2 = 20 Marks)

(3)

1. List the differences between an anticline and a syncline.
2. What is meant by exfoliation?
3. What is meant by Dendritic Drainage? What does it indicate about the landscape over which it occurs?
4. List and describe at least two coastal landforms.
5. Differentiate between plutonic and hypabyssal igneous rocks.
6. List the important ores of Aluminium, Lead, Zinc and Uranium.
7. What properties of a material are measured while performing Gravity surveys and Seismic surveys.
8. What is a lineament? How is it identified in an image?
9. List the causes of Tsunami.
10. List the thematic maps that can be generated by remote sensing for landslide studies.

Part – B (5 x 16 = 80 marks)

11. (i) Describe in detail, the role of remote sensing in groundwater exploration.
(ii) Explain the principle of seismic survey and data interpretation for a two-layer case.

12. a) Describe the various processes and products involved in the weathering of rocks and list the significance of weathering.

(OR)

b) What are tectonic plates? List and describe their types. Add a detailed note on the seismic zones of India.

13. a) Give an account of the various erosional, depositional and other littoral processes operating in the coast. Add a description of the various coastal landforms.

(OR)

b) Describe the following in detail: (i) fluvial landforms; (ii) Drainage pattern.

14. a) Classify and describe sedimentary rocks, with emphasis on the various structures and textures of these rocks. List the resources associated with these rocks.

(OR)

b) Elaborate on the varieties, composition, properties, origin, occurrence, uses and distribution in India of : (i) Iron ores (ii) Copper ores (iii) Minerals sued in paints.

15. a) Classify natural hazards and list the causes of and mitigation measures for the hazards that occur on hill-slopes and on the coast.

(OR)

b) Explain the role of remote sensing in earthquake studies, landslide hazard zonation and tsunami hazard mapping.