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B.E / B.Tech (Full Time) DEGREE END SEMESTER EXAMINATIONS, APRIL / MAY 2014

Geoinformatics

Third Semester

AG9212- Applied Geology I

(Regulation 2008.)

Time: 3 Hours

Answer ALL Questions

Max. Marks 100

PART-A (10 x 2 = 20 Marks)

1. How do you differentiate the recumbent fold from drag fold?
2. What are the geological signatures helps to identify the fault in the field?
3. Name the geological structure recognizes from Trellis type of drainage pattern
4. Illustrate the types of sand dunes produced by wind action
5. What is the hardness of Calcite, Apatite, Topaz and Corundum minerals?
6. What are conglomerates?
7. How lineaments are identified in satellite images?
8. Enumerate the applications of geophysical methods
9. What is the seismic zone of Tamil Nadu?
10. Differentiate between Debris flow and Mud flow in landslide area

Part – B (5 x 16 = 80 marks)

11. Describe the coastal erosion and depositional landforms with neat diagrams
12. a) Elucidate the genetic and geometrical classification of joint structures in rocks

(OR)

- b) Describe the internal structure of the earth based on seismic discontinuities

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13. a) Give a detailed account on classification of rocks with examples and describe the forms of Igneous rocks
(OR)
b) Write the physical properties of minerals with examples. Add a note on types of economic minerals
14. a) Describe the Remote Sensing techniques used for geological mapping and groundwater exploration
(OR)
b) Illustrate the types of electrical resistivity survey methods used for subsurface geological studies and add a note on its applications
15. a) Elucidate the causes and types of natural hazards and describe the classification of landslides and its mitigation measurements
(OR)
b) Give an account on;
i) Sea wall, Bulk head, Groins and Jetties
ii) Formation of cyclones and anticyclones
iii) Volcanic structures and rocks
iv) Types of Plate boundaries