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**Third Semester B.E. Degree Examination, Dec.2013 / Jan. 2014**  
**Mining Geology - I**

Time: 3 hrs.

Max. Marks:100

**Note: 1. Answer any FIVE full questions, selecting  
atleast TWO questions from each part.  
2. Draw neat diagrams wherever necessary.**

**PART – A**

- 1 a. Explain internal structure and composition of the earth. Add a note on geology and its role in the field of mining. (10 Marks)
- b. Briefly explain the geological work of ground water with special reference to their influence on mining and engineering. (10 Marks)
- 2 a. What are minerals? Explain the physical properties of minerals with examples. (10 Marks)
- b. Explain the origin, chemical composition, occurrence and uses of Felspar group of minerals. (10 Marks)
- 3 a. Describe the classification of rocks with examples. Add a note on structure of Igneous rocks. (10 Marks)
- b. What is metamorphism? Explain the agents and types of metamorphism. (10 Marks)
- 4 Explain the textural, structural and mineralogical characters of the following rocks.  
a. Granite    b. Dolerite    c. Sand stone    d. Gneiss    e. Marble. (20 Marks)

**PART – B**

- 5 a. Explain geological time scale. Add a note on law of order of super position. (10 Marks)
- b. What is correlation? Explain the methods of correlation. (10 Marks)
- 6 a. Describe the physiographic divisions of India. (10 Marks)
- b. Explain the Cuddapah group of rocks. Add a note on their economic importance. (10 Marks)
- 7 a. What are primary structures? Explain the different types of primary structures. (10 Marks)
- b. Explain dip and strike. Add a note on compass Clinometers and its uses. (10 Marks)
- 8 a. Explain the different types of faults. Add a note on their field recognition and importance in mining operations. (16 Marks)
- b. Topographic maps. (04 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

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