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2010-2011
 B.Sc. (HONS.) (PART-III) EXAMINATION
 (GEOLOGY)
 SEDIMENTARY & METAMORPHIC PETROLOGY
 (GL-317)

VASI
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Maximum Marks: 40

Duration: Three Hours

Answer all questions.

1. Describe the basic principles of paleo-environments and paleoclimatic analysis. 07

OR

1'. Write notes on the following:

- (a) Significance of grain size distribution in relation to depositional environments
- (b) Idealized sequence of sedimentary structures in lower and upper flow regimes.

✓2. Describe the primary sedimentary structures commonly associated with shallow water deposits. 07

✓3. Discuss the concept of maturity of sediments. Which mineralogical and textural attributes are indicative of maturity of sands? 06

OR

3'. Write detailed notes on:

- (a) Petrography and geological significance of quartz arenite.
- (b) Geosynclinal facies.

✓4. Describe the various types of textures and structures of metamorphic rocks. 06

5. Explain the essential characteristics of paired metamorphic belts with suitable schematic cross-sections. 07

OR

✓5'. Write detailed notes on the following:

- (a) Barrovian zones of regional metamorphism
- (b) Concept of metamorphic facies.

6. What do you understand by cataclastic metamorphism? Describe the important products formed due to cataclastic metamorphism. 07