

2008-2009
B.Sc.(HONS.) (PART-III) EXAMINATION
(GEOLOGY)
SEDIMENTARY & METAMORPHIC PETROLOGY
(GL-317)

Maximum Marks: 40

Duration : Three Hours.

Answer all questions.

1. What is palaeocurrent? Discuss in brief the various methods of palaeocurrent analysis. 07
- OR
- 1'. Write notes on the following:
- (a) Concept of sedimentary facies.
 - (b) Significance of detrital grain-size distribution in environmental analysis.
2. What are bases for the classification of sandstones? Discuss any ^{one} scheme for the classification of sandstone. 07
- OR
- 2'. Write detailed notes on the following:
- (a) Concept of mineralogical and textural maturity of sand.
 - (b) Relationship between tectonics and sedimentation.
3. Briefly describe the different types of internal structures of sediment. 06
- OR
- 3'. Write notes on the following:
- (a) Significance of ichno-fossils.
 - (b) Turbidite sequences.
4. Discuss the role of various agents during metamorphism of rocks. 07
- OR
- 4'. Write notes on the following:
- (a) Chemical equilibrium in metamorphic rocks
 - (b) Metamorphic texture and their significance.
5. Discuss in brief the metamorphic facies concepts and grades of metamorphism. 07

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OR

5'. Write notes on the following:

- (a) Barrovian zones of regional metamorphism.
- (b) Paired metamorphic belts.

6. What is metasomatism? Classify the metasomatic processes according to the kinds of rock they affect.

06

OR

6'. Write notes on the following:

- (a) P-T diagram
- (b) Origin of charnokites.

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