

*This question paper contains 3 printed pages.*

2551

Your Roll No. ....

**M.Sc. Earth Science / II Sem. A**

**PAPER 201— SEDIMENTOLOGY**

**(Admissions of 2010 and onwards)**

**Time : 3 hours**

**Maximum Marks : 75**

*(Write your Roll No. on the top immediately  
on receipt of this question paper.)*

*Attempt any five questions.*

*All questions carry equal marks.*

1. Describe the role of weathering in formation of the sedimentary flux. Explain your answer with chemical reactions during weathering of feldspars.
2. What is the role of fluids during the transport of sediments? Describe the characteristic bedforms resulting in lower and upper flow regimes.
3. What do you understand by the sedimentary texture? Describe the grain size scales of Wentworth and Krumbein's used in grain size analysis.
4. Describe the anatomy of an asymmetric ripple. Discuss the formation of different types of cross stratifications in sandstones.

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5. What is a siliciclastic rock? Describe the framework components in these rocks and discuss the role of matrix and cement in coherence of the siliciclastic rocks.
  
6. Describe the major components of the carbonate rocks. Give reasoning behind the large scale formation of carbonate rocks in shallow marine environments.
  
7. Give a brief description of the following and discuss their environmental significance (any *two*):
  - (i) Bedded/Nodular chert
  - (ii) Black shales
  - (iii) Evaporite sequence.
  
8. What are the different types of carbonaceous sedimentary rocks? Discuss the role of coalification to differentiate different types of coal with a brief description of any *three* types of coal deposits.