

University of Delhi

B.Sc. (H) Geology, Sem III Examination 2020 (Theory)
Paper C2, Sedimentary Petrology, Paper code 32191302.

Time: 3 hours

Maximum marks: 75

Attempt any Four questions.

All questions carry equal marks.

Explain your answer with labelled diagrams wherever needed.

Q1: How do you define textural characteristics of clastic rocks? Differentiate the particle size distribution in sediments derived from aeolian and flood plain environments. Explain your answer in terms of statistical parameters and graphs.

Q2: What do you understand by the term “sedimentary flux”? Explain the relative abundance of the different types of the sedimentary flux and the possible sedimentary rocks. Give a brief note about the sediments in alluvial fans and beaches.

Q3: What is the difference between “clastic” and “non-clastic” rocks? Describe the essential components of the clastic rocks and describe the characteristic features of the “Arenite”, “Wacke” and “Arkose”

Q4: What do you understand by the terms “micrite” and “sparite”? Describe any two types of the limestones following the Folks or Dunham’s classification schemes

Q5: Define the role of fluids during sedimentation. What is the difference between laminar and turbulent flows? Describe the threshold energy required for entrainment, transportation, and settling of the mud, sand, and gravels using Hjulsstroms’s curves.

Q6: Describe the anatomy of an asymmetrical ripple. What important changes in sedimentary conditions will lead to the formation of (i) low angle climbing ripples, (ii) high angle climbing ripples, and (iii) Flaser beddings.