'समानो मन्त्रः समितिः समानी'

UNIVERSITY OF NORTH BENGAL

B.Sc. Honours 3rd Semester Examination, 2021

CC6-GEOLOGY

SEDIMENTOLOGY

Time Allotted: 2 Hours | Full Marks: 40

The figures in the margin indicate full marks.

1. Answer any ***five*** of the following: 1×5 = 5
   (a) Define intraclast.
   (b) How matrix important in sandstone classification?
   (c) How wave ripples differ from current ripples?
   (d) 'Most of the carbonates are of clastic origin.' – Explain.
   (e) How palaeocurrent direction can be obtained from pebble imbrication?
   (f) How ooids different from peloids?
   (g) Why cement not considered in sandstone classification?
   (h) Explain Reynold's number.

2. Answer any ***three*** from the following: 5×3 = 15
   (a) 'Spherical grain may not be well rounded.' – Explain.
   (b) Differentiate skewness from kurtosis in sediment grain size analysis.
   (c) Differentiate upper flow regime from lower flow regime.
   (d) Why the Udden-Wentworth scale in beneficial for statistical parameter interpolation?
   (e) Describe the mean, median and mode for grain size distribution.

3. Answer any ***two*** from the following: 10×2 = 20
   (a) Discuss four sedimentary structures that indicate way-up direction. $2\frac{1}{2}$×4 = 10
   (b) Explain textural maturity. What are the different stages of textural maturity in sandstone? 2+8
   (c) What are the different processes that operate in limestone diagenesis? Differentiate normal and reverse grading and their significance. 6+4
   (d) How does the Nominal diameter of any grain is calculated? Discuss the Sneed and Folk methods of classification of the grain form. 4+6

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