

INTER B.SC. (GEOLOGICAL SC.) 1<sup>ST</sup> SEMESTER EXAMINATION, 2019 (Old)

Subject: SEDIMENTOLOGY

Time: 2 Hrs

Full Marks: 50

Paper – V

GROUP A

Use a separate Answer-Script for each group

Answer question (1) and *any three* from the remaining

1. What is an antidune? Describe, with suitable sketches, different erosional primary structures encountered in nature. 2+8  

Or

Write a detailed note on shape of the sedimentary grains and their geological significance. Why well rounded grains are usually well sorted? 8+2
2. Why primary structures are not usually environment-specific? How herringbone cross-strata suggests particular depositional environment? 2+3
3. Describe, with neat sketches, the formative process of Hummocky cross-strata. 5
4. Briefly describe different biogenic structures encountered within sedimentary rocks. 5
5. Justify the following statements 5
  - i. Planar laminations within fine to medium sandstone can only be produced under upper flow regime.
  - ii. Supermatured sandstones are most likely to represent beach environment.
6. Differentiate between 5
  - i. Wave and current ripple.
  - ii. Lower and upper flow regime.

**INTER B.SC. (GEOLOGY), EXAMINATION 2019(OLD)**

(1<sup>st</sup> Semester)

**Paper-V, Group-B  
(SEDIMENTOLOGY)**

Marks: 25

*Answer questions No.1 and any two from the rest*

*(Use separate answer script for each group)*

1. What are the differences between : (3x3=9)
  - (a) Meandering river and Braided river
  - (b) Chemical weathering of sediments
  - (c) Laminar flows and turbulent flows
  
2. a) Give an account of Dunham's classification of carbonate rocks.  
c) What are the different modes of clastic sediments transport ?  
(5+3=8)
  
3. a) What is arenite? What is diagenesis ? Give an account on diagenesis of siliciclastic sedimentary rocks ?  
(2+2+4=8)
  
4. a) What do you mean Allochemical and Orthochemical sedimentary rocks ?  
b) What are the provenance and tectonic settings of Arkosic rocks ?  
c) What is greywacke ?  
(3+3+2=8)