

**B.Sc. Semester-III Examination, 2022-23****GEOLOGY [Honours]**

Course ID : 32012 Course Code : SH/GEL/302/C-6(T)

Course Title : Sedimentology

Time : 1 Hour 15 Minutes

Full Marks : 25

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*

1. Answer any **five** of the following questions:  $1 \times 5 = 5$
- What is CCD?
  - What would be the name of the rock (according to Folk) with 45% bioclasts and 20% peloid embedded within micritic cement?
  - What do you mean by textural maturity of a rock?
  - What kind of pebble imbrications would you expect in a river bed?
  - What is 'geopetal fabric'?
  - What is stylolite?
  - Define Ripple Symmetry Index.
  - Give an example of volcanoclastic sedimentary rock.

2. Answer any **two** of the following questions:  $5 \times 2 = 10$

a) Draw neat sketches of the following sedimentary structures and comment on their significance- Herringbone cross-stratification, Wave ripple, Flute cast.  $1 \frac{1}{2} + 2 + 1 \frac{1}{2} = 5$

b) Write a short note on convolute lamination.

c) Compare between: (i) Skewness and Kurtosis; (ii) Median and Mode

d) Justify your answer:

i) Reduction in grain-size is recorded in downstream direction.

ii) Quartz arenite is a characteristic rock type of stable platform.

3. Answer any **one** of the following questions:  $10 \times 1 = 10$

a) What is Diagenesis? Briefly discuss the different stages of diagenesis in siliciclastic rocks.  $2 + 8 = 10$

b) Briefly discuss different types of mass flow, their mechanisms and deposits preferably in a tabular form. 10