

2019

B.Sc.

3rd Semester Examination

**GEOLOGY (Honours)**

Paper - C 6-T

**(SEDIMENTARY PETROLOGY)**

Full Marks : 40

Time : 2 Hours

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

**Group - A**

Answer any *five* of the following questions :

5×2=10

1. What are grain flow deposits ?
2. When would you call a sandstone, texturally mature?
3. What is greywacke ?
4. What are prod marks ?

[ Turn Over ]

5. What is repetitive bedding ?
6. What are edge-wise conglomerates ?
7. What kind of heavy mineral assemblage would you expect in sediments derived from a granite-pegmatitic source ?
8. A rock consists of ~65% bioclast and ~35% peloids as allochems and has abundant sparry calcite cement. Name the rock.

**Group - B**

Answer any *four* of the following questions :

4×5=20

9. Briefly explain the "Dolomite Problem".
10. (a) Define mean, median and mode.  
(b) Establish the relation between mean, median and mode in a negatively skewed curve. 3+2
11. (a) Draw the bedform stability diagram.  
(b) What are antidunes ? 3+2
- 12.(a) Classify types of ooids.  
(b) Differentiate between collapse breccia and solution breccia. 3+2

13. Write short notes on any *Two* penecontemporaneous deformation sedimentary structures.  $2\frac{1}{2}\times 2$
14. (a) Define roundness. Write down its mathematical expression.
- (b) What do you mean by imbricated flow? Give sketch to illustrate.
- (c) Differentiate between mudstone and shale.  $2+2+1$

### Group - C

Answer any *one* of the following question :

$1\times 10=10$

15. Write a note on the diagenesis of carbonate sediments. 10
16. (a) With neat sketches, describe different types of cross-bedding.
- (b) Write short note on stromatolites. 7+3