

**2023**

**Time - 3 hours**

**Full Marks - 60**

*Answer all groups as per instructions.*

*Figures in the right hand margin indicate marks.*

**GROUP – A**

1. Answer all questions and fill in the blanks as required. [1 × 8]
- (a) The dominant mineral limestone is \_\_\_\_\_.
- (b) A heavy mineral has specific gravity more than \_\_\_\_\_ gm/cc.
- (c) In orthoquartzite, the percentage of quartz is more than \_\_\_\_\_ %.
- (d) The zone that includes area between level of high tide and low tide is \_\_\_\_\_.
- (e) The size range of silt-sized particle is \_\_\_\_\_ to \_\_\_\_\_ mm.
- (f) Stylolite is a \_\_\_\_\_ type of sedimentary structure.
- (g) A rudaceous rock with rounded shape clastic grain is called \_\_\_\_\_.

[ 2 ]

(h) Lamination structure is found in which sedimentary rock ?

**GROUP – B**

2. Write notes on any eight of the following within two to three sentences each. [1½ × 8]

- (a) Herringbone structure
- (b) Turbulent flow
- (c) Compaction
- (d) Graded bedding structure
- (e) Sphericity
- (f) Types of fluids
- (g) Particle entrainment
- (h) Dolomitisation
- (i) Shale
- (j) Non-clastic texture

**GROUP – C**

3. Write notes on any eight of the following within 75 words each. [2 × 8]

- (a) Concept of grain size
- (b) Roundness of grain

[ 3 ]

- (c) Vindhyan sedimentary basin
- (d) Mud crack
- (e) Cementation
- (f) Sources of sediments
- (g) Sole marking structure
- (h) Conglomerate
- (i) Sedimentary facies
- (j) Significance of heavy mineral studies

**GROUP – D**

*Answer all questions within 500 words each.*

4. Give a detail account on diagenesis. [6]

OR

Briefly describe the process of formation of sedimentary rocks with examples.

5. Briefly describe the texture of sedimentary rocks. [6]

OR

Give a detail account on sedimentary environment.

[ 4 ]

6. Give a detail account on sedimentary basins of India. [6]

OR

Give a detail account on palaeocurrent analysis.

7. Write a petrographic note on sandstone. [6]

OR

Write a petrographic note on limestone.