Name:

Enrolment No:

UPES

End Semester Examination, May 2025

Course Name: B. Sc. Geology **Semester:** II

Program: Sedimentary Petrology **Time: 3** hrs.

Course Code: PEGS 1022 **Max. Marks:** 100

Nos. of page(s) 2

Instructions

I. All questions are compulsory.
II. Read question carefully and write appropriate answer.
III. Write correct unit in after numerical calculation.
IV. Use neat diagram with proper labeling to explain the answer.

SECTION A (5Qx4M=20Marks)

S. No.		Marks	CO
Q 1	Define any two glacial landforms created by deposition.	**4**	**CO1**
Q 2	Create the difference between laminar and turbulent flow.	**4**	**CO2**
Q 3	Define porosity types in clastic and carbonate rocks.	**4**	**CO4**
Q 4	Explain Walther's Law of Facies with a simple diagram.	**4**	**CO3**
Q 5	Explain the role of water in chemical weathering. Give two examples of weathering reactions.	**2+2**	**CO1**
SECTION B (4Qx10M= 40 Marks)			
Q 6	Describe the main processes involved in the rock cycle, use suitable diagram to support your answer.	**5+5**	**CO3**
Q 7	Explain the concept of sedimentary facies and its significance in stratigraphy.	**10**	**CO3**
Q 8	Discuss fluvial sediment transport processes. Explain, how grain size and flow velocity influence the mode of transport (traction, saltation, suspension).	**5+5**	**CO2**
Q 9	Discuss the mechanics of sediment transport in a river system. Explain, how do flow characteristics like laminar and turbulent flow affect erosion and deposition?	**5+5**	**CO4**
SECTION-C (2Qx20M=40 Marks)			
Q 10	Discuss sedimentary facies and types. Explain, how they helpful to analyze paleoclimate and paleo depositional system?	**5+15**	**CO4**
Q 11	Discuss in detail the classification of sedimentary structures with labeled diagrams to illustrate different types. OR Explain the types of system tracts (LST, TST, HST) and their typical sedimentary characteristics in a sequence stratigraphic framework.	**20**	**CO3**