



UNIVERSITY OF RUHUNA
FACULTY OF FISHERIES AND MARINE SCIENCES &
TECHNOLOGY

Academic Year 2023/2024

Bachelor of Science Honours in Marine and Freshwater Sciences Degree

Level III Semester II Examination – April/May 2025

OCG 3223: Structural and Field Geology

Time: 2 hours

Answer all questions in Part A and any Three (03) questions from Part B

Use sketches/diagrams where appropriate to illustrate your answer

PART B

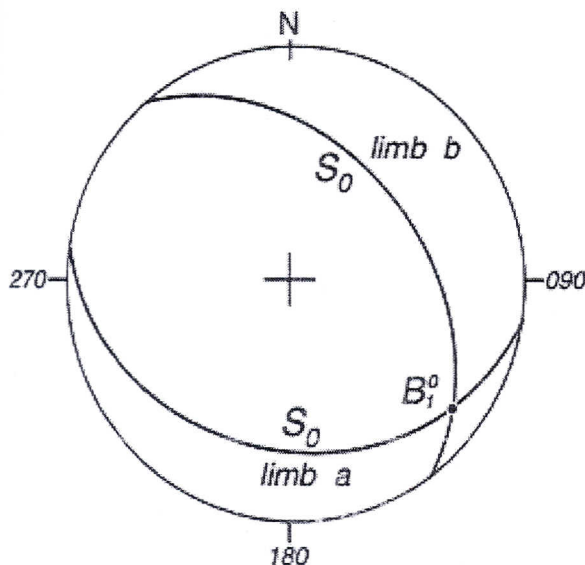
01.

- What is deformation? [04 marks]
- Describe deformation of a rock based on general stress-strain relationship. [08 marks]
- Distinguish between simple shear and pure shear deformation. [08 marks]

02.

- What is a fold limb? [04 marks]
- List the type of folds based on the inter-limb angle. [06 marks]
- Orientations of two limbs of a fold are plotted on the stereo net given below. Describe the fold with an illustration based on the data from the stereo net.
 S_0 – Bedding, B_1^0 – Fold axis

[10 marks]



03.

- a) What is a joint set in a fractured rock?
- b) Compare and contrast between a joint and a fault?
- c) Describe fault rocks you would identify in a fault zone.

[06 marks]

[06 marks]

[08 marks]



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04. Write short notes on the following topics.

- a) Foliation in metamorphic rocks
- b) Extension fractures
- c) Quadrant bearing and azimuthal bearing in Geological Compass
- d) Lithotectonic units of Sri Lanka

[05 marks 4 = 20 marks]

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