



UNIVERSITY OF RUHUNA  
FACULTY OF FISHERIES AND MARINE SCIENCES &  
TECHNOLOGY

Academic Year 2022/2023

Bachelor of Science Honours in Marine and Freshwater Sciences Degree

Level III Semester II Examination – October/November 2024

OCG 3223: Structural and Field Geology

Answer any three (03) questions from Part B

*Use sketches/diagrams where appropriate to illustrate your answer.*

PART B

01.

- a) What is a fault? [04 marks]
- b) Distinguish between normal faults and thrust faults based on at least three criteria. [06 marks]
- c) Briefly describe how would you recognize a fracture surface as a fault surface. [10 marks]

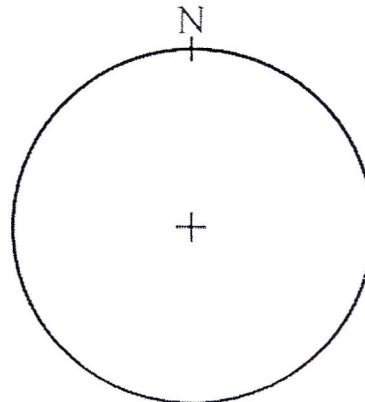
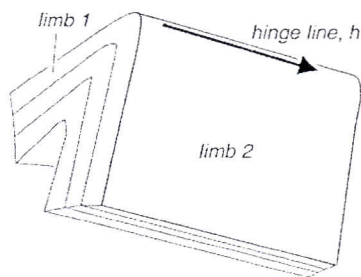
02.

- a) What is a fold? [04 marks]
- b) Discuss about close folds, tight folds, and isoclinal folds. [06 marks]
- c) A chevron-style fold is shown left below. The attitudes of two limbs of the fold are as follows.

Limb 1:  $101^{\circ}/50^{\circ}\text{N}$ , Limb 2:  $065^{\circ}/60^{\circ}\text{S}$

Show (approximately) the two limbs on a similar sketch stereogram shown in the right. Determine (approximately) the attitude of the fold hinge line, h.

[10 marks]



03.

a) What is deformation?

[04 marks]

b) Explain initial stage, incremental stages and finite stage of deformation.

[06 marks]

c) Describe badinaging of a folded layer during deformation.

[10 marks]

04. Write short notes on the following topics.

a) Planer and Liner structures

b) Penetrative and non-penetrative structures

c) Scale of structures

d) Primary and secondary structures

[05 marks \*4 = 20 marks]

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FACULTY

OCG 3232 - C

1.
  - i. Explain
  - ii. Define
  - iii. Briefly

2.
  - i. What
  - ii. What of each
  - iii. Ident large

3.
  - i. Desc
  - ii. How land
  - iii. Des dund

4.
  - i. A b Des suc
  - ii. An mo
  - iii. Ho of