



'সমানো মন্ত্র: সমিতি: সমানী'

UNIVERSITY OF NORTH BENGAL
B.Sc. Honours 2nd Semester Examination, 2023

CC4-GEOLOGY
STRUCTURAL GEOLOGY

Time Allotted: 2 Hours

Full Marks: 40

The figures in the margin indicate full marks.

1. Answer any **five** questions of the following: 1×5 = 5
 - (a) Give example of a primary structure and a secondary structure.
 - (b) What is transverse profile plane of a fold?
 - (c) What do you understand by "Pitch" of a linear structure?
 - (d) What is compositional foliation?
 - (e) Which type of fault(s) will not show offset on map and section?
 - (f) Is it possible that in a train of folds, the axial surfaces may show diverge orientations? If possible, name the folds.
 - (g) Why primary structures are not developed in metamorphic rocks?
 - (h) Name one joint structure that is characteristic to volcanic rocks.

2. Answer any **three** questions of the following: 5×3 = 15
 - (a) How will you find out the correct sequence of rocks in an area using primary structures?
 - (b) How are anticlines and synclines distinguished when they occur in sedimentary rock sequences?
 - (c) Write about five structural elements of fold.
 - (d) What are the structural slickenlines? Where we can find structural slickenlines? What are discrete lineations?
 - (e) Give a classification of faults based on relative movement between blocks.

3. Answer any **two** questions of the following: 10×2 = 20
 - (a) Describe in detail the fold classification of Turner and Weiss.
 - (b) Define unconformity. What are the major types of unconformities found in nature?
 - (c) What is the difference between a joint surface and a fault surface? Name three types of conjugate joints.
 - (d) Give the definition of fault. Write about four criteria (with suitable sketches if necessary) that are helpful in recognising a fault in nature.

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