

## **MGH 451**

## Second Semester M.Sc. Degree Examination, September/October 2022 (CBCS) MARINE GEOLOGY Structural Geology and Hydrogeology

Time: 3 Hours Max. Marks: 70

**Instruction**: Answer **all** the questions.

I. Define/state the following:

 $(10 \times 1 = 10)$ 

- 1) Graded bedding
- 2) Dip and strike
- 3) Axis and axial plane
- 4) Torsion force
- 5) Master joints
- 6) Aquiclude
- 7) Specific capacity
- 8) Drainage basin
- 9) Spring
- 10) Piezometric surface.
- II. Write short notes on any five of the following:

 $(5 \times 4 = 20)$ 

- 11) Relationship of structural geology with other branches of geology.
- 12) Stress and strain diagram.
- 13) Recognition of unconfirmity in the field.
- 14) Mechanism of faulting.
- 15) Types of aquifer.
- 16) Rainwater harvesting.
- 17) Physical and chemical properties of water.
- 18) Porosity and permeability.

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III. Answer any four of the following:

 $(4 \times 5 = 20)$ 

- 19) Ramsay's classification of fold.
- 20) Genetic classification of faults.
- 21) Types of unconformity.
- 22) Artificial recharge of groundwater.
- 23) Darcy's law and its validity.
- 24) Electrical resistivity method in groundwater investigation.

## IV. Answer the following:

 $(2\times10=20)$ 

25) What is a fold? Give the classification of folds with neat diagrams and label the parts.

OR

What are joints? Give the classification of joints with neat diagrams.

26) Discuss in detail the saline water intrusion phenomenon and how it affects the coastal groundwater system.

OR

Explain in detail various sources and causes of groundwater pollution. Discuss about its affect on human health.