

B.Sc. 5th Semester (Honours) Examination, 2021

GEOLOGY

Course Title: Hydrogeology

Course ID: 52011

Course Code: SHGEL-501C-11(T)

Time: 1 Hour 15 Minutes

Full Marks: 25

The figures in the right-hand side margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Answer any five of the following questions:

1×5=5

- a. What is cone of depression?
- b. What is spring?
- c. Define hydraulic gradient.
- d. What is surface run-off?
- e. Define hydrological cycle.
- f. What is the full form of BOD?
- g. What is intercepted water?
- h. Define aquifer.

2. Answer any two of the following questions:

2×5=10

- a. Briefly describe specific yield and specific retention.
- b. Distinguish between: (i) porosity and permeability; and (ii) zone of saturation and zone of aeration.
- c. What are the factors that control ground water storage and fluctuations?
- d. Write a short note on the global distribution of water.

3. Answer any one of the following questions:

10×1=10

- a. State Darcy's law. Explain the significance of hydraulic conductivity and gradient in groundwater flow and storage. 4+6=10
 - b. Describe pollution of groundwater with special emphasis on causes, effects and control measures.
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