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UG/5th Sem/Geolo(H)/T/19

2019

B.Sc. (Honours)

5th Semester Examination

GEOLOGY

Paper - C11T

(Hydrogeology)

Full Marks : 40

Time : 2 Hours

The figures in the margin indicate full marks.

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

Group - A

Answer any *five* questions from the following.

5×2=10

1. What is ground water table ?
2. Define the term piezometric surface.
3. What is runoff ?

[Turn Over]

(2)

4. What is the difference between confined and unconfined aquifer ?
5. What is artesian well ?
6. Define hydraulic conductivity.
7. What is specific yield of an aquifer ?
8. Define storativity.

Group - B

Answer any *four* questions of the following.

4×5=20

9. Write the controlling factors of surface runoff.
10. Write a note on different types of geological formations based on the capacity to store & transmit water.
11. Write a short note on Darcy's law.
12. (a) Write is flow net ?
(b) Write the process of drawing flow net. 2+3
13. Write a short note about the relation between porosity and permeability of a rock to determine its storage coefficient.

(3)

14. Define groundwater recharge area and groundwater discharge area. What do you understand by fluctuation of groundwater table ? Define base-flow.
1+1+2+1=5

Group - C

Answer any *one* question of the following.

1×10=10

15. (a) Write a note on vertical distribution of subsurface water.
- (b) What is Reynold's Number ? 7+3
16. Explain hydrological cycle with suitable diagram. Discuss various governing factors responsible for ground water movement. 5+5
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