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UG/5th Sem/GEOLO(H)/Pr/19

2019

B.Sc. (Honours)

5th Semester Examination

GEOLOGY

Paper - C11-P

Hydrogeology

(Practical)

Full Marks : 20

Time : 3 Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Answer the following questions :

1. Draw the water table contours on the given map and also mark the flow lines. (Map attached) 5
2. Graphically represent the given chemical data of water both for pre and post monsoon and classify it by using trilinear diagram.

[Turn Over]

Ions	Pre monsoon (mg/l)	Post monsoon (mg/l)
Na ⁺	4	9
K ⁺	0	0
Ca ²⁺	1.6	8
Mg ²⁺	0.24	5.6
CO ₃ ⁻²	10	10
HCO ₃ ⁻¹	45	65
Cl ⁻¹	4.5	12
SO ₄ ²⁻	0	1.2

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3. Three wells A, B and C are tapping in the same aquifer recorded the water levels as 18.6 m, 18.2 m and 16.2 m respectively. B is situated 1400 m SW of A and C is 800 m SE from A. Now determine the direction of groundwater and also compute the resultant net of groundwater flow in the aquifer. Also determine the velocity. 3+2
4. Laboratory Note Book. 2
5. Viva voce. 3
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