

17P255

(Pages: 2)

Name.....

Reg. No.....

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, MAY 2018

(Regular/Supplementary/Improvement)

(CUCSS - PG)

CC15P GEL2 C07 - HYDROGEOLOGY

(Applied Geology)

(2015 Admission onwards)

Time: Three Hours

Maximum: 36 Weightage

I. Short answer type questions. Answer *all* questions.

1. Vadose zone.
2. Meteoric and magmatic water.
3. USSL diagram.
4. Bore wells and tube wells.
5. Hydrograph.
6. Rain water harvesting.
7. Springs.
8. Ghyben-Herzberg relationship.
9. Groundwater recharge and draft.
10. VES
11. Effective porosity.
12. Specific retention.
13. Semi-confined aquifers.
14. Fluoride contamination in groundwater of Kerala.

(14 x 1 = 14 Weightage)

II. Short essay type questions. Answer any *seven* questions.

15. Problems of over exploitation of groundwater.
16. Define water table and piezometric surface with neat sketches.
17. Define Darcy's Law with sketches.
18. Discuss about various types of well logging.
19. Define hydrologic cycle with a neat sketch.
20. Application of remote sensing in groundwater studies.
21. Problems associated with coastal aquifers.
22. Groundwater provinces of India.
23. Discuss about the artificial recharge methods suitable for Kerala.
24. Describe the procedures of a pumping test.

(7 x 2 = 14 Weightage)

III. Long essay type questions. Answer any *two* questions.

25. Describe surface geophysical methods used in groundwater exploration.

OR

26. Write an essay on physical and chemical properties of groundwater for various uses and graphical representations of water quality data.

27. Describe types of aquifers and hydrological properties of aquifers.

OR

28. Write an essay on different drilling methods used in groundwater exploration.

(2 x 4 = 8 Weightage)
