

**18P414**

(Pages: 2)

Name: .....

Reg. No.....

**FOURTH SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2020**

(CUCSS - PG)

(Regular\Improvement\Supplementary)

**CC15P ES4 E22 – HYDROLOGY AND WATER RESOURCES**

(Environmental Science)

(2015 Admission onwards)

Time: Three Hours

Maximum: 36 Weightage

I. Answer *all* questions. Each question carries 1 weightage.

1. Define Ecohydrology.
2. What is Hydrometeorology?
3. Comment on Canopy interception.
4. Distinguish between advection and condensation.
5. Define Drainage basin.
6. What is Water balance?
7. What is flow duration curve?
8. Define runoff.
9. Distinguish between zone of aeration and zone of saturation.
10. Define Water table.
11. What is aquifer? Give one example.
12. Differentiate between local and regional water.
13. Discuss Riparian vegetation.
14. Explain Phytoremediation.

**(14 x 1 = 14 Weightage)**

II. Answer any *seven* questions. Each question carries 2 weightage.

15. Give an account of history of hydrology.
16. Isotope hydrology and its applications.
17. Comment on the global distribution of earth's water.
18. Write short notes on evaporation and transpiration in hydrologic cycle.
19. Discuss the various statistical analysis in hydrology.
20. What is hydrograph? Comment on its applications.
21. Enumerate the different rock properties affecting ground water.
22. Different methods of groundwater exploration.
23. Comment on relevance of watershed management.
24. Discuss issues of interlinking of rivers.

**(7 x 2 = 14 Weightage)**

III. Write an essay on any *two* of the following. Each question carries 4 weightage.

25. Write an essay on the structure, physical and chemical properties of water.

26. Describe the various aspects of Rainfall-runoff relationship.

27. Explain Darcy's law. Write notes on permeability, transmissivity and storage coefficient.

28. What is water harvesting? Discuss the various methods of artificial recharge of ground water.

**(2 x 4 = 8 Weightage)**

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