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Name.....

Reg. No.....

FOURTH SEMESTER M.Sc. DEGREE EXAMINATION, MARCH 2017

(CUCSS - PG)

(Environmental Science)

CC15P ES4 E22 – HYDROLOGY AND WATER RESOURCES

(2015 Admission)

Time: Three Hours

Maximum: 36 Weightage

I. Answer *all* questions.

1. Hygroscopic water
2. Flow duration curve
3. Drainage basin
4. Athirapally Hydroelectric Project
5. Advection of water
6. Water balance equation
7. Skimming of waste water
8. Graupel
9. Un confined Aquifer
10. Ramsar convention
11. Hydrograph
12. Water Quality Index (WQI)
13. Transpiration
14. Watershed management

(14 x 1 = 14 weightage)

II. Answer *any 7* questions.

15. Explain canopy interception and its influence on hydrologic cycle.
16. Comment on various methods employed in the artificial recharge of ground water.
17. Write a note on recent techniques in rain water harvesting.
18. Define Darcy's law with an emphasis on its application.
19. Explain Hydroinformatics. Comment on its application.
20. Write a note on the vertical distribution of ground water.
21. Explain Isotope Hydrology. Comment on its application.
22. Briefly explain various statistical analytical techniques in hydrology.
23. Explain the significance of Riparian vegetation in water resource management.

24. Comment on various approaches to flood frequency analysis and estimation.

(7 x 2 = 14 weightage)

III. Write an essay on any 2 of the following.

25. Write an essay on the issues related to water resources in India. Comment on their management measures.

26. List out various methods employed in the treatment of water.

27. Briefly explain the pros and cons of river interlinking in Kerala.

28. Write a note on various methods employed in ground water exploration.

(2 x 4 = 8 weightage)
