

19P118

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Name:

Reg. No.....

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2019

(CUCSS PG)

CC19P ESC1 C02 – PHYSICAL PROCESSES IN THE ENVIRONMENT

(Environmental Science)

(2019 Admission Regular)

Time: Three Hours

Maximum: 30 Weightage

I. Answer any **four** questions. Each question carries 2 weightage.

1. Compare upwelling and outwelling.
2. How does deep ocean circulation differ from wind driven surface circulation?
3. What causes maritime climate?
4. What causes temperature inversions?
5. Why is the ocean conveyor belt important?
6. Differentiate between weather and climate.
7. What is James Ephraim Lovelock known for?

(4 x 2 = 8 Weightage)

II. Answer any **four** questions. Each question carries 3 Weightage.

8. Explain cloud formation. What are the main factors that affect cloud formation?
9. What is aerosol? How do aerosols affect climate?
10. Expand ENSO. What happens during an ENSO event?
11. What are the characteristics of tropical climate zone?
12. Discuss droplet growth, curvature and solute effects.
13. Evaluate adiabatic processes as a key concept in thermodynamics.
14. Convergence zones are of interest to oceanographers. Explain the reasons.

(4 x 3 = 12 Weightage)

III. Write an essay on any **two** of the following. Each question carries 5 Weightage.

15. Explain briefly Koppen climate classification.
16. Describe the structure of the Earth.
17. Explain Atmospheric boundary layers and their significance in pollutant dispersion.
18. Write an essay on wind pattern, ocean circulation and monsoon.

(2 x 5 = 10 Weightage)
