PG CBCS

M.Sc. Semester-III Examination, 2020 BOTANY

PAPER: BOT 303

ECOLOGY & ENVIRONMENTAL BIOLOGY

Full Marks: 40 Time: 2 Hours

Write the answer for each unit in separate sheet

BOT 303.1

PLANT PHYSIOLOGY

1. Answer any two questions from the following:

 $10 \times 2 = 20$

- I. What are hydrophytes? Discuss different morpho-anatomical and physiological adaptive features found in hydrophytes.2+4+4
- II. What is food chain? Distinguish between grazing and detritus food chain. Write a note on food web.
- III. Define population. Write down the different attributes of population. Comment on r-strategy and k-strategy.2+4+4
- IV. Write the ecological value of Mangroves. Discuss physiological and biochemical adaptations of Mangroves.
- V. What is meant by energy dynamics of an ecosystem? Illustrate the process of energy flow through an ecosystem. What is ecological pyramid? 2+6+2

BOT 303.2 ENVIRONMENTAL BIOLOGY

2. Answer any two questions from the following:

 $10 \times 2 = 20$

- I. What is meant by biodiversity? Distinguish between α -diversity and β -diversity. Discuss the role of Ramsar site in conservation of biodiversity. 2+2+6
- II. What is ozone hole? Depict Chapman cycle. Write the harmful effects of ozone depletion on human health.
- III. Define pollution. Write a short note on Earth summit. Define Silent valley Movement.

2+4+4

- IV. What is acid precipitation? Differentiate between dry precipitation and wet precipitation.Comment the harmful effect of acid precipitation on aquatic ecosystem. 2+2+2+4
- V. Write a short note on Eucalyptus controversy. Briefly discuss about Chipko movement.