# PG CBCS <br> M.Sc. Semester-III Examination, 2020 <br> BOTANY <br> PAPER: BOT 303 <br> 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 rstrategy and k-strategy.
IV. Write the ecological value of Mangroves. Discuss physiological and biochemical adaptations of Mangroves.

4+6
V. What is meant by energy dynamics of an ecosystem? Illustrate the process of energy flow through an ecosystem. What is ecological pyramid?


## 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 $\alpha$-diversity and $\beta$-diversity. Discuss the role of Ramsar site in conservation of biodiversity.
II. What is ozone hole? Depict Chapman cycle. Write the harmful effects of ozone depletion on human health.

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2+4+4
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III. Define pollution. Write a short note on Earth summit. Define Silent valley Movement.

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2+4+4
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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.

