

M.Sc. 3rd Semester Examination, 2019

BOTANY

PAPER –BOT-303

Full Marks : 40

Time : 2 hours

Answer all questions

The figures in the right-hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

UNIT – I

(Ecology)

1. Comment on the following (any two) : 2 × 2

(a) Food Web

- (b) Habitat and niche
- (c) Population
- (d) Autecology and Synecology.

2. Write short notes on any *two* of the following : 4×2

- (a) Shallow and Deep ecology
- (b) Wetland as Nature's Kidney
- (c) Ecological efficiencies
- (d) Hydrophytic adaptations.

3. Answer any *one* of the following : 8×1

(a) Define ecological succession. Distinguish between primary and secondary succession. Depict the various seral stages of aquatic to terrestrial successions. $2 + 2 + 4$

(b) Define Mangroves. Discuss any two important ecological functions of Sunderban mangroves. Comment on the nature of propagules in Viviparous and Crypto-Viviparous mangroves. $2 + 4 + 2$

UNIT – II

(*Environmental Biology*)

4. Comment on the following (any *two*) : 2×2
- (a) Bio-indicator plants
 - (b) Hydrosphere
 - (c) Global warming
 - (d) Sanctuary.
5. Write short notes on any *two* of the following : 4×2
- (a) Earth summit
 - (b) Ozone hole
 - (c) Ecological debates on *Eucalyptus* in India.
 - (d) Silent Valley Movement.
6. Write any *one* of the following : 8×1
- (a) Define pollution. Name the types of air pollutants and their respective harmful *effects*. $1 + 3 + 4$

(b) What is acid precipitation ? Differentiate between dry precipitation and wet precipitation. Comment the harmful effect of acid precipitation on aquatic ecosystem.

2 + (2 + 2) + 2
