

2022

BOTANY

[P.G.]

(CBCS)

(M.Sc. Third Semester End Examinations-2022)

PAPER-303

Full Marks: 40

Time: 03 Hrs

*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

[USE SEPARATE ANSWER SCRIPT FOR EACH UNIT]

Unit -I

F.M. - 20

[Ecology and Environmental Biology]

Group - A

- 1. Answer any four questions of the following: 1x4= 4**
- What are Ephemeral Annual plants?
 - Differentiate between Hydro-halophytes and xerohalophytes?
 - Define food chain.
 - Why Water hyacinth is called a heliophyte plant?
 - What is deep ecology?

(2)

- f. What is Trophic level ? Who first gave the concept of Trophic level?

Group - B

2. Answer any two questions: 2x4= 8
- a. Write about the applications of water hyacinth.
- b. Write short note on climx concept.
- c. Write short notes on- trophic niche and hypervolume niche
- d. Write down the anatomical features with respect to ecological adaptation in hydrophytes.

Group - C

3. Answer any one question 1x8= 8
- a. Differentiate between (a) r- and K-selected reproductive strategies and (b) exponential growth and logistic growth with proper examples. 4+4=8
- b. Explain two effective strategies taken by most halophytic species that allow seed germination in different habitats. 4+4=8

Unit -II

F.M. - 20

[Environmental Biology]

Group - A

1. Answer any four questions of the following: 1x4= 4
- a. What is lithosphere?

(3)

- b. What is meant by Genetic Diversity? Give example.
- c. What is acid rain?
- d. Name one important bacterium used for bioremediation of oil spills?
- e. What is bioaccumulation of methyle mercury?
- f. Name of two front workers of Beej bachao andolan?

Group - B

2. Answer any two questions: 2x4= 8
- a. Write down the mechanism of ozone layer depletion. What is Dobson unit? 3+1=4
- b. Write briefly about the methods to monitor air pollution. 4
- c. Write short notes on- 2x2= 4
- i) EIA ii) Sustainable development
- d. Write a brief note on Bioremediation.

Group - C

3. Answer any one question 1x8= 8
- a. What is meant by biological diversity? Mention two factors taken into account for measuring Biodiversity Indices. Write briefly about loss of biodiversity and its impact in nature. 1+3+3+1= 8

(4)

b. Explain Agenda-21 of Earth Summit of 1992. Discuss from environmental point of view about the background, method of agitation and outcome of Silent Valley movement? Who wrote the book "Silent Spring"?

2+2+2+1+1 =8