

PG/II/BOT/IX/07

2007

BOTANY

PAPER-IX

Full Marks : 80

Time : 4 hours

The figures in the right-hand margin indicate marks

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

Write the answers **to questions** of each **Half in separate books**

FIRST HALF

(*Marks: 50*)

Answer Q. No.1 and any two from the rest

1. Write short notes on the following (*any five*) 4x5
- (a) Deep ecology
 - (b) Food web
 - (c) Climax concept
 - (d) Acid precipitation
 - (e) *Eucalyptus* debate

(Turn Over)

(f) Anatomical **modification in aquatic plants**

(g) *Silent spring*

(h) Carrying capacity.

2. **What is shifting cultivation ? Write the different steps of this type of agriculture. Discuss the harmful effects of shifting agriculture.** 3+6+6
3. **Define mangrove. Discuss the environmental values of mangroves in the light of Indian Sunderbans.** 3+12
4. **What is Ozone hole? Write the reasons of ozone depletion. Discuss the bad effects of ozone loss.** 2+7+6

SECOND HALF

(Marks : 30)

5. Write a brief account of role of Phytoalexins **in disease resistance with suitable examples.** 8

Or

Write about post infectious biochemical defence of **plants giving suitable examples.**

6. Write the C. O. symptoms **and control** of the root rot of sal. 1+3+4

Or

Describe the Pink disease of Eucalyptus and its control. 8

7. (a) **What is the** difference between *Gigaspora* and *Acaulospora*?
- (b) **What are the beneficial effects of VAM on host'?**
- (c) **Give an account of types of mycorrhizae in nature.** 2+3+3

Or

- (a) **What are the causes of depletion of mycorrhizal inoculum in soil'?**
- (b) **Give the morphological and anatomical structure of Ectomy corrhiza.**
- (c) **What is the function of arbuscle ?** 2+4+2
8. **Write short notes on any two of the following :** 3x2
- (a) **Disease triangle**
- (b) **Biological control of diseases**
- (c) **Method of VAM inoculation in nursery**
- (d) **Physiological disease of *Casuarina*.**