

**M.Sc. Part-II Examination, 2012**

**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*

*Illustrate the answers wherever necessary*

**Write the answers 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 any *five* of the following : 4 × 5
- (i) Deep ecology ;
  - (ii) Shifting cultivation ;

( 2 )

- (iii) Ecotone ;
- (iv) Climax concept ;
- (v) Bhopal disaster ;
- (vi) Eutrophication ;
- (vii) Biogeochemical cycle ; and
- (viii) National park.
2. Define mangroves. Write five distinguishing characters of mangroves. Discuss briefly the roles of Sunderbans mangroves in biodiversity conservation. 3 + 5 + 7
3. What is acid precipitation ? Discuss the adverse effects of acid rain on forest and aquatic life. 3 + (6 + 6)
4. Define Wetlands. Write the economic and ecological roles of wetlands. 3 + (6 + 6)
5. What is ozone hole ? Mention the factors leading to ozone hole formation. Discuss on the harmful effects of ozone depletion. 3 + 5 + 7

( 3 )

SECOND HALF

[Marks : 30]

Answer all questions

6. Write the difference between disease and symptom. Explain; how a fungal pathogen enters into the host tissues using enzymes, to cause a disease ? 4 + 6

Or

Define quarantine. Write the structural defense which a host develops to resist the penetration of pathogen. 2 + 8

7. How the root rot of *Sal(shorea robusta)* occurs ? Write the symptoms and control methods of the disease. 3 + 7

Or

How the spike disease of Sandal wood occur ? Write the symptoms and the control methods of the disease. 3 + 7

8. Write short notes on any *two* of the following :

5 × 2

(i) Benefits of VAM;

(ii) Mycorrhizae and disease control ; and

(iii) Occurrence of ectomycorrhizae in nature.