

2016

M.Sc. Part-II Examination

BOTANY

PAPER—IX

Full Marks : 80

Time : 4 Hours

The figures in the margin indicate full marks.

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

Illustrate the answers wherever necessary.

Use separate Answer-scripts for First Half & Second Half.

First Half

[Marks : 50]

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

1. Write short notes on any five of the following : 5×4

(a) Climate change,

(b) Climax concept,

(Turn Over)

- (c) Silent spring,
 (d) Food web,
 (e) National Park,
 (f) *Eucalyptus* debate,
 (g) Watershed management,
 (h) Xerophytic adaptation.

What is shifting cultivation ? Depict the *Jhum* cycle.
 Comment on the ecological impact of shifting cultivation.

3+5+7

Define population. Explain carrying capacity of a population. Discuss r-strategy and k-strategy.

3+6+(3+3)

Define greenhouse effect. Mention three greenhouse gases. Discuss the impact of greenhouse effect on agricultural and coastal ecosystems.

2+3+(5+5)

Define wetlands. Write the ecological values of wetlands.

3+12

Second Half

[Marks : 30]

Answer *all* questions.

6. Write notes on any *four*. 4×5

- (a) Inoculation
 (b) Infection
 (c) Root rot of Sissoo
 (d) Spike disease of sandal wood.
 (e) Teak root rot
 (f) Sissoo wilt.

7. Define two basic types of penetration. Elaborate the different modes of wound formation. Comment on the different types of natural openings. What are the variations observed among pathogens entering through stomata ? 2+3+2+3

Or

Define disease. What are the Koch's postulates ? Briefly state the basic types of symptoms. 2+4+4