

(2)
V / BOT (v)

2014

(5th Semester)

BOTANY

FIFTH PAPER

(Fungi, Plant Pathology and Biostatistics)

Full Marks : 55

Time : 2 hours

(PART : B—DESCRIPTIVE)

(Marks : 35)

*The figures in the margin indicate full marks
for the questions*

1. Give a detailed comparative account on
Ascomycotina and Basidiomycotina.

7

Or

Write short notes on any two the following :

(a) Fungal spores

3½×2=7

(b) General features of fungi

(c) Spore dispersal by animals

G15—350/154a

(Turn Over)

- 2. Write an account on the economic importance of fungi.**

(19129102 106)

Or

Describe any *two* of the following : $3\frac{1}{2} \times 2 = 7$

- (a) Heterothallism
(b) Evolutionary trends in fungi
(c) Symbiosis

- 3. Define infection. Explain different types of host-pathogen interaction.** 2+5=7

Or

Ör

Write short notes on any two of the following :

- 3½×2=7
- (a) Biological control of plant disease
- (b) Scope of plant pathology
- (c) Phytoalexins

4. With an illustrated diagram, explain the symptoms exhibited by late blight and early blight of potato.

Or

Describe different control measures adopted
for any *two* of the following : $3\frac{1}{2} \times 2 = 7$

- (a) Citrus canker
- (b) Downy mildew of crucifers
- (c) Rusts of wheat

5. What is chi-square test? Mendel found 787 tall plants and 277 dwarf plants in F_2 generation. Test by chi-square method whether the observed values fit to the expected values or not. [The table value for χ^2 for 1 degree of freedom at 5% level of significance is 3.841]

$$2+5=7$$

Or

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

$$3\frac{1}{2} \times 2 = 7$$

- (a) Standard error
- (b) Correlation
- (c) Median

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FIFTH PAPER

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(PART : A—OBJECTIVE)

(Marks : 20)

The figures in the margin indicate full marks for the questions

Answer all questions

SECTION—I

(Marks : 5)

Put a Tick (✓) mark against the correct answer in the
brackets provided : **1×5=5**

1. *Alternaria* belongs to the subdivision

(a) Mastigomycotina ()

(b) Ascomycotina ()

(c) Basidiomycotina ()

(d) Deuteromycotina ()

2. Parasexuality was first discovered by

- (a) Pontecorvo and Roper ()
- (b) Blakeslee et al ()
- (c) Ehrenberg et al ()
- (d) Alexopoulos and Mimms ()

3. Formation of tyloses in plant is a

- (a) physical defense mechanism ()
- (b) chemical defense mechanism ()
- (c) biological defense mechanism ()
- (d) biochemical defense mechanism ()

4. Red rot of sugarcane is caused by

- (a) *Phytophthora infestans* ()
- (b) *Alternaria solani* ()
- (c) *Colletotrichum falcatum* ()
- (d) *Puccinia graminis* ()

5. Root-mean-square deviation from mean is

(a) correlation ()

(b) coefficient of variation ()

(c) standard deviation ()

(d) standard error ()

SECTION—II

(Marks : 15)

Write brief notes on the following :

3×5=15

1. Zoospores

2. Obligate parasites

Subject Code : **V/200 (M)**

Booklet No. **A**

287

V/200 (M)

2014

(5th Semester)

ZOOLOGY

Paper No. **EL-V**

(**Cell Biology**)

Full Marks : **55**

Time : **2 hours**

(**PART : B—DESCRIPTIVE**)

(Marks : **35**)

figures in the margin indicate full marks
for the questions

a prokaryotic cell? Write down the
between prokaryotic and
cell. **2+5=7**

Or

active transport across the
with examples

Signature of
candidate(s)

/140

1. Penetration

(7)

4. Disease cycle of loose smut of wheat

(8)

5. Arithmetic mean

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V/BOT (M)