

2 0 1 6**(5th Semester)****BOTANY****FIFTH PAPER****(Fungi, Plant Pathology and Biostatistics)***Full Marks : 55**Time : 2½ hours***(PART : B—DESCRIPTIVE)****(Marks : 35)***The figures in the margin indicate full marks
for the questions*

- 1.** Give a critical note on different types of fungal spore and their liberation. 7

Or

Write brief notes on any *two* of the following : $3\frac{1}{2} \times 2 = 7$

- (a) Ainsworth's system of classification of fungi
- (b) Comparison of asexual spores of Ascomycotina and Basidiomycotina
- (c) General features of fungi

- 2.** Briefly describe the economic importance of fungi. 7

Or

Write short notes on any *two* of the following : $3\frac{1}{2} \times 2 = 7$

- (a) Evolutionary trends in fungi
- (b) Heterothallism
- (c) Modes of nutrition in fungi

- 3.** Describe different biological methods adopted for plant disease control. 7

Or

Write brief notes on any *two* of the following : $3\frac{1}{2} \times 2 = 7$

- (a) Scope of plant pathology
- (b) Infection
- (c) Physical defense mechanism

- 4.** Write an account on the symptoms, disease cycle and control measures of late blight of potato. 7

Or

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

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

(3)

5. What do you mean by chi-square test? Find whether or not the following phenotype distribution in a sample of 112 flies from a particular fruit fly population has a goodness of fit with the Mendelian 9 : 3 : 3 : 1 distribution (critical value of χ^2 at 0.05 for 3 d.f. is 7.82) : 2+5=7

<i>Phenotypes</i>	Grey body red eye	Black body red eye	Grey body scarlet eye	Black body scarlet eye
<i>Frequencies</i>	59	20	25	8

Or

Write short notes on any *two* of the following : 3½×2=7

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

★ ★ ★

Subject Code : **V**/BOT (v)

Booklet No. **A**

Date Stamp

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To be filled in by the Candidate

DEGREE 5th Semester
(Arts / Science / Commerce /
.....) Exam., **2016**

Subject

Paper

**To be filled in by the
Candidate**

DEGREE 5th Semester
(Arts / Science / Commerce /
.....) Exam., **2016**

Roll No.

Regn. No.

Subject

Paper

Descriptive Type

Booklet No. B

INSTRUCTIONS TO CANDIDATES

1. The Booklet No. of this script should be quoted in the answer script meant for descriptive type questions and vice versa.
2. This paper should be **ANSWERED FIRST** and submitted within 45 minutes of the commencement of the Examination.
3. While answering the questions of this booklet, any cutting, erasing, overwriting or furnishing more than one answer is prohibited. Any rough work, if required, should be done only on the main Answer Book. Instructions given in each question should be followed for answering that question only.

Signature of
Scrutiniser(s)

Signature of
Examiner(s)

Signature of
Invigilator(s)

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V/BOT (v)

2 0 1 6
(5th Semester)

BOTANY

FIFTH PAPER

(Fungi, Plant Pathology and Biostatistics)

(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. Asexual reproduction is by zoospore formation in

- (a) Mastigomycotina ()
- (b) Zygomycotina ()
- (c) Ascomycotina ()
- (d) Basidiomycotina ()

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(2)

2. The great antibiotic drug penicillin was obtained from

(a) *Penicillium divaricatum* ()

(b) *Penicillium griseofulvum* ()

(c) *Penicillium notatum* ()

(d) *Penicillium javanicum* ()

3. Foliage sprays and dusts are in which type of control measures?

(a) Physical ()

(b) Chemical ()

(c) Biological ()

(d) Structural ()

4. *Colletotrichum falcatum* causes the disease

(a) early blight of potato ()

(b) powdery mildew of crucifers ()

(c) citrus canker ()

(d) red rot of sugarcane ()

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(3)

5. 'Root-mean-square deviation from mean' is

- (a) arithmetic mean ()
- (b) correlation ()
- (c) standard deviation ()
- (d) standard error ()

(4)

SECTION—II

(Marks : 15)

Write short notes on the following :

3×5=15

1. Zoospores

(5)

2. Parasexuality in fungi

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(6)

3. Passive dispersal or dissemination of pathogens

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(7)

4. Control measures of wheat rust

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(8)

5. Arithmetic mean

★ ★ ★

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