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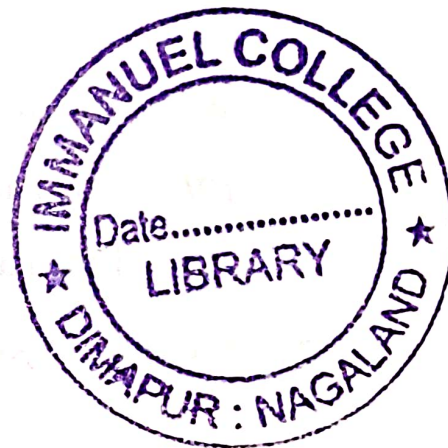
(FYUGP)

(2nd Semester)

BOTANY

(MINOR)

Paper : BCC/M-02



(Mycology and Phytopathology)

Full Marks : 75

Pass Marks : 40%

Time : 3 hours

(PART : B—DESCRIPTIVE)

(Marks : 50)

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

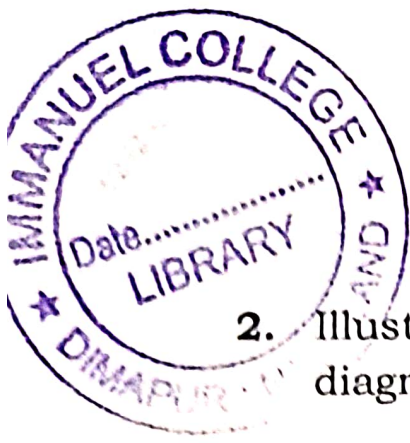
1. Explain the cell wall structure and mode of nutrition in fungi. 5+5=10

Or

Write short notes on the following : 5×2=10

(a) Slime molds

(b) Asexual and sexual reproduction of lichen



(2)

2. Illustrate the life cycle of *Synchytrium* with diagram. 8+2=10

Or

Write short notes on the following : 5×2=10

- (a) Characteristic feature of Oomycota
- (b) Thallus structure of *Phytophthora*

3. Explain the life cycle of *Puccinia*. 10

Or

Write short notes on the following : 5×2=10

- (a) Bioluminescence
- (b) Parasexuality

4. Write short notes on the following : 5×2=10

- (a) Mycofungicides
- (b) Industrial use of fungi

Or

Describe the role of fungi in nanotechnology. 10

5. Describe the different plant quarantine methods in disease control. 10

Or

Write notes on the following : 5×2=10

- (a) Damping-off disease
- (b) General symptoms of plant diseases

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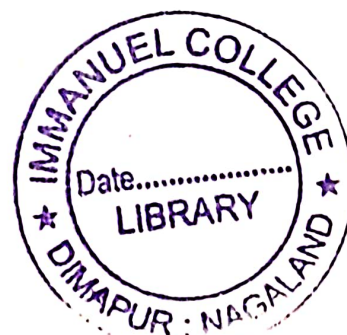
(FYUGP)

(2nd Semester)

BOTANY

(MINOR)

Paper : BCC/M-02



(Mycology and Phytopathology)

(PART : A—OBJECTIVE)

(Marks : 25)

The figures in the margin indicate full marks for the questions

Choose the correct answer by putting a Tick (✓) mark
in the brackets provided : 1×15=15

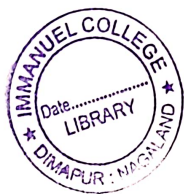
1. Fungi which can grow only on living host plant are called

- (a) obligate parasites ()
- (b) obligate saprophytes ()
- (c) facultative parasites ()
- (d) saprophytes ()

(2)

2. Hartig nets are found in

- (a) endomycorrhiza ()
- (b) ectomycorrhiza ()
- (c) oomycetous fungi ()
- (d) ascomycetous fungi ()



3. Which of the following are sexual spores in fungi?

- (a) Arthrospores ()
- (b) Ascospores ()
- (c) Sporangiospores ()
- (d) Chlamydospores ()

4. A button-like structure which penetrates the host and draws nutrients is

- (a) rhizoid ()
- (b) appressorium ()
- (c) rhizomorph ()
- (d) haustoria ()

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(3)

5. Mycelium of class Oomycetes is always

- (a) coenocytic ()
- (b) septate ()
- (c) cross-septa ()
- (d) None of the above ()



6. Pseudomycelium is formed in

- (a) *Synchytrium* ()
- (b) *Rhizopus* ()
- (c) yeast ()
- (d) *Pythium* ()

7. Which type of fungicide is potentially most effective and economical?

- (a) Soil fumigant ()
- (b) Paste ()
- (c) Systematic fungicide ()
- (d) Dust ()

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(4)

8. A fungus which requires only one single host for completion of its life cycle is called

- (a) heteroecious ()
- (b) autoecious ()
- (c) heterothallism ()
- (d) heterosporous ()

9. Teliospore is a/an

- (a) sexual spore ()
- (b) asexual spore ()
- (c) vegetative spore ()
- (d) chlamydospore ()

10. Which fungal disease is commonly associated with 'damping-off' in seedlings?

- (a) Powdery mildew ()
- (b) Rust ()
- (c) Downy mildew ()
- (d) *Rhizoctonia solani* ()

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(5)

11. Parasexuality was first discovered by

- (a) Pontecorvo ()
- (b) Erikson ()
- (c) de Bary ()
- (d) Robert Koch ()

12. Dictyospore is a spore with

- (a) only horizontal septa ()
- (b) only vertical septa ()
- (c) both horizontal and vertical septa ()
- (d) No septa ()

13. Once the pathogen has established in an area, the steps taken to remove or destroy is known as

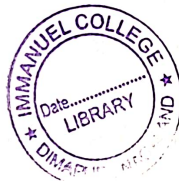
- (a) exclusion ()
- (b) eradication ()
- (c) protection ()
- (d) prevention ()

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(6)

14. What is the primary reproductive structure of most fungi?

- (a) Ascus ()
- (b) Basidium ()
- (c) Spore ()
- (d) Mycelium ()



15. Which scientist is considered as the 'Father of Phytopathology'?

- (a) Louis Pasteur ()
- (b) Antonie van Leeuwenhoek ()
- (c) Heinrich Anton de Bary ()
- (d) Robert Koch ()

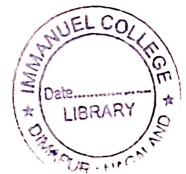
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(7)

Answer/Write notes on any *five* of the following in short :

2×5=10

1. What is a dolipore septum?



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(8)

2. What is a disease triangle in plant pathology?



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(9)

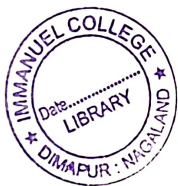
3. Differentiate between homothallism and heterothallism.



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(10)

4. Define coenocytic hyphae and mycelium.



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(11)

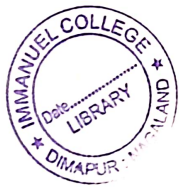
5. Differentiate between telemorph and anamorph.



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(12)

6. Role of haustorium



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(13)

7. What is plasmodium?



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