

Sl. No. of Question Paper: 2293

Unique Paper Code: 2531202

Name of the Paper: Phycology and Mycology

Name of the Course: Bachelor with Honours in Microbiology FYUP Part-I Semester-II

Semester: II

Duration: 03 hours

F-4

Maximum Marks: 75 Marks

Instructions for Candidates

Attempt any five questions selecting at least two questions from each section. All questions carry equal marks.

Section -A (Phycology)

1 (a) Define the following (any seven):

- i. Epizoic Algae
- ii. Auxospore
- iii. Frustule
- iv. Monoecious
- v. Aplanospore
- vi. Pyrenoid
- vii. Plakea Stage
- viii. Hormogone

1X7 = 7

(b) Draw well-labeled diagram of the following (any two):

- (i) Heterocyst
- (ii) *Chlamydomonas* Cell
- (iii) Eyespot

3X2 = 6

(c) Explain why red algae grows at greater depths?

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2. Write short notes on the following (any five):

- (a) Akinete
- (b) Algal flagella
- (c) Diplohaplontic life cycle
- (d) Reproduction in *Nostoc*
- (e) Photosynthetic pigments in Algae
- (f) Economic importance of Phaeophyceae

3X5 = 15

3. (a) Differentiate between the following (any three):

- (i) Vegetative cell and Heterocyst
- (ii) Pinnate and Centric diatoms

(iii) Anisogamy and Oogamy

(iv) Isokont and Heterokont

3X3 = 9

(b) Discuss the various types of thallus found in algae.

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Section B (Mycology)

Q.4. (a) Define the following terms giving a suitable example (**any six**):

- i. Eucarpic
- ii. Anamorph
- iii. Clamp connection
- iv. Dimorphic fungus
- v. Dictyospore
- vi. Aflatoxin
- vii. Macrocytic fungus

2x6=12

(b) How is the fungus *Penicillium* economically important?

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Q.5. Differentiate between (**any five**):

- i. Homothallic and Heterothallic fungus
- ii. Perithotroph and Biotroph
- iii. Monoplanetic and Diplanetic fungus
- iv. Acervulus and Pycnidium
- v. Primary and Secondary zoospore
- vi. Autoecious and Heteroecious fungus

3x5=15

Q.6. (a) Name the fungus responsible for causing (**any three**):

- i. Early blight
- ii. Smut
- iii. Oral thrush
- iv. Downy mildew

1x3=3

(b) What are the methods of asexual reproduction in yeasts?

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(c) Who discovered Parasexual Cycle and in which organism? What is the significance of this cycle to a fungus?

(1+1+2=4)

(d) Describe the various sexual fruiting bodies in Ascomycetes.

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