

# C.U.SHAH UNIVERSITY

## Winter Examination-2018

**Subject Name: Mycology and Phycology**

**Subject Code: 5SC01MAP1**

**Semester: 1**

**Date: 30/11/2018**

**Branch: M.Sc. (Microbiology)**

**Time: 02:30 To 05:30**

**Marks: 70**

### Instructions:

- (1) Use of Programmable calculator and any other electronic instrument is prohibited.
  - (2) Instructions written on main answer book are strictly to be obeyed.
  - (3) Draw neat diagrams and figures (if necessary) at right places.
  - (4) Assume suitable data if needed.
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### SECTION – I

- Q-1 Attempt the Following questions (07)**
- a. Define heterothallism.
  - b. Mention the functions of pyrenoids
  - c. Define dikaryotic mycelium
  - d. Name of the three phases in sexual reproduction of fungi
  - e. Define akinete
  - f. Agar agar is obtained from.....
  - g. Algal partner of the lichen is known as.....
- Q-2 Attempt all questions (14)**
- (a) Write an account on asexual and sexual reproduction in Algae. (7)
  - (b) Discuss the role of fungi in Biodeterioration of wood. (7)

### OR

- Q-2 Attempt all questions (14)**
- (a) Give an account of the thallus variation found in the members of chlorophyceae with suitable diagrams. (7)
  - (b) List any four resemblances and four differences between basidiomycetes and ascomycetes. (7)
- Q-3 Attempt all questions (14)**
- (a) Differentiate between the following (7)
    - i) Crustose lichen and fruticose lichen
    - ii) Ascospore and basidiospore
    - iii) Perithecium and pycnidium
  - (b) Discuss the role of algae in biofuel production. (7)

### OR

- Q-3 (a) Discuss the life cycle and economic importance of Myxomycete. (7)**
- (b) Define mycorrhiza. Explain various types of mycorrhiza with the help of a labelled diagram. (7)**



## SECTION – II

**Q-4 Attempt the Following questions (07)**

- a. Give any two use of Nostoc
- b. Enlist the types of spores in puccinia
- c. Write the role of heterocyst
- d. Define eutrophication
- e. Define somatogamy
- f. Reserve food material of fungi is .....
- g. Baker yeast is.....

**Q-5 Attempt all questions (14)**

- (a) Cyanobacteria are used as biofertilizers. Discuss (7)
- (b) Describe telial and pycnidial stage in the life cycle of puccinia graminis vs. tritici (7)

**OR**

- Q-5 (a) What do you understand by quorum sensing? Explain it with reference to fungi (7)
- (b) Write a note on mycotoxins. Discuss the harmful effect of mycotoxins. (7)

**Q-6 Attempt all questions (14)**

- (a) Give a brief account of sexual reproduction and ascocarp formation in higher ascomycotina. (7)
- (b) Explain the somatic structure and life cycle of Oomycetes. (7)

**OR**

**Q-6 Attempt all Questions**

- (a) What is sex hormone? Describe the role of sex hormone in fungi (7)
- (b) What is heterothallism? Describe in brief the heterothallism in fungi (7)

