

Time Allowed—3 Hours]

[Maximum Marks—35

**Note :—** Attempt FIVE questions in all. Question No. 1 is compulsory. Each question carries 7 marks.

1. Give short answers (3-4 lines) to each of the following :

- (a) Differentiate between the uredospore and teleutospore of *Puccinia*.
- (b) Why are cyanobacteria considered as prokaryotes ?
- (c) Name any two genera which yield agar-agar.
- (d) Name any two lichens and give their economic importance.
- (e) Comment on the nucleic acids of viruses.
- (f) What do you understand by Coenobium ?
- (g) Give the scientific binomial name of brewer's and baker's yeast.

2. Describe thallus organisation, pigment types, reserve food and economic importance of the members of the following algal classes :

- (a) Chlorophyceae
- (b) Rhodophyceae.

3. Give detailed account of reproduction and economic importance of bacteria.

4. Write short notes on the following :

- (a) Cleistothecium of *Eurotium*
- (b) Perithecium of *Chaetomium*.

5. How do viruses differ from bacteria ? Describe the structure and replication of any virus that you have studied.

6. Draw the structure of the following genera :

- (a) *Volvox*
- (b) *Vaucheria*
- (c) *Ectocarpus*
- (d) *Sargassum*
- (e) *Polysiphonia*
- (f) *Coleochaete*.

7. To which class do the following genera belong and why ?
- (a) *Puccinia*
  - (b) *Cercospora*
  - (c) *Colletotrichum*
  - (d) *Agaricus*
  - (e) *Pythium*
  - (f) *Peziza*
  - (g) *Mucor*.
8. Describe important features and life history of *Phytophthora*. Why is this genus important ?
9. Write briefly on the following :
- (a) Life history of *Vaucheria*
  - (b) Life history of *Polysiphonia*.