

Exam. Code : 103201

Subject Code : 1287

B.A./B.Sc. I<sup>st</sup> Semester

BOTANY

Paper—IA

(Diversity of Microbes)

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*.