

Roll No.

Total No. of Questions : 9]
(2033)

[Total No. of Printed Pages : 4

UG (CBCS) Ist Year Annual Examination
3009

B.Sc. BOTANY

[Biodiversity(Algae, Microbes, Fungi and
Archegoniates)]

(Core)

Paper : BOTA-101

Time : 3 Hours]

[Maximum Marks : 50

Note :- Attempt *five* questions in all. Q. No. 1 is compulsory.
Attempt *one* question each from Sections A, B, C
and D. Draw well-labelled diagrams wherever
necessary. All questions carry equal marks.

(Compulsory Question)

1. Fill in the blanks/Give one word/one sentence answers
to the following (All parts are compulsory) :

(i) Biologists consider viruses as while
biochemists consider them as

(ii) Ribosomes of bacteria are of type.

CA-209

(1)

Turn Over

- (iii) Gongrosira stage occurs in
- (iv) Cell wall of fungal cell is made up of
- (v) The fertile portion of *Funaria* capsule is called
- (vi) Asexual reproduction in *Polysiphonia* occurs by
- (vii) What is the common name of *Equisetum* ?
- (viii) The wonder drug 'Pencillin' is obtained from which species of *Penicillium* ? *notatum*
- (ix) Mycorrhizal roots are found in which gymnosperm ? *Cyprus*
- (x) What is the nature of association between algae and fungi in Lichens ? *Grass* 1×10=10

Section-A

2. (a) Give an account of economic importance of Algae.
- (b) Give a detail account of sexual reproduction in *Polysiphonia*. 5,5

Or

3. (a) What are the various types of life-cycles found in algae ? Draw diagrams also.
- (b) Describe the process of cell-division in *Oedogonium*.
- (c) Describe the position of sex organs in *Vaucheria*. 5,3,2

Section-B

4. (a) Draw diagrams only to show the various stages in the life-cycle of *Puccinia Graminis*.
- (b) Describe sexual reproduction in *Rhizopus*. 6,4

Or

5. (a) Describe the morphology and disease cycle of the pathogen which causes apple scab disease.
- (b) Give the detailed structure of basidiocarp of *Agraricus*. 5,5

Section-C

6. (a) Explain the lytic and lysogenic life-cycles in viruses.
- (b) Describe the type of bacteria on the basis of shape, flagellation and nutrition. 5,5

Or

7. (a) Draw a neat and well-labelled diagram of *Funaria* sporogonium.
- (b) Explain sexual reproduction in *Marchantia*. 5,5

Section-D

8. (a) Describe the spore producing organs and asexual reproduction in *Selaginella*.
- (b) Draw a neat and well-labelled diagram of *Pinus* needle and mention its xerophytic characters.
- (c) Give the external features of *Eqisetum*. 4,4,2

Or

9. (a) Draw internal structure of stem of *Eqisetum*.
What is the difference in the nodal and internodal regions ?
- (b) Describe the structure of male cone, microsporangia, microspores and megasporophyll and ovule of *Cycas*. 4,6