

Roll No.

Total No. of Questions : 9] [Total No. of Printed Pages : 4
(2042)

UG (CBCS) Ist Year Annual Examination
2009

B.Sc. BOTANY

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

(Core)

Paper : BOTA 101

Time : 3 Hours]

[Maximum Marks : 50

Note :- Attempt *five* questions. Question No. 1 is compulsory.
Attempt *one* question each from Parts-B, C, D and
E. Each question carries equal marks. Draw neat
and well-labelled diagrams wherever necessary.

Part-A

(Compulsory Question)

1. (i) The outer proteinaceous coat of TMV is called
.....
- (ii) What is the chief component of bacterial cell
wall ?

CH-728

(1)

Turn Over

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(iii) Gongrosira stage is found in an alga called

(iv) Name a xanthophyll that is largely responsible for brown colour in many members of class phacophyceae. 2005

(v) Parasites that complete their life cycle in a host without killing the host are called

(vi) Give example of a crustose lichen.

(vii) Rhizoids with oblique septa are found in a bryophyte called

(viii) Indusium found in *Adiantum* is (a) true indusium (b) false indusium.

Choose correct one :

(ix) Radially elongated endodermal cells are found in a pteridophyte called

(x) Name two *Cycas* species found in India. 1×10=10

Part-B

2. (a) Describe sexual reproduction in *Polysiphonia*.

(b) Discuss the economic importance of algae. 6+4=10

CH-728

(2)

3. (a) Give diagrammatic representation of life-cycle of mannandrous species of *Oedogonium*.

(b) Discuss the role of 'algae as food' to man-kind. 6+4=10

Part-C

4. (a) Give an account of asexual reproduction in *Phytophthora infestans*.

(b) Draw V.S. of pileus of *Agaricus* to show three different zones of gill.

(c) Cite differences between phragmobasidia and holobasidia. 5+3+2=10

Or

5. (a) Describe the special vegetative structures associated with lichen thallus in detail.

(b) Lichens play an important role in soil formation. Discuss. 7+3=10

Part-D

6. (a) Classify bacteria on the basis of flagellation.

(b) Draw ultrastructure of a typical bacterial cell.

CH-728

(3)

Turn Over



- needle. 5+5=10
9. (a) Gymnosperms are economically importance to mankind. Discuss. 10
 (b) Draw well-labelled diagram of T.S. of *Pinus* 5+5=10
- Or
8. (a) Describe stellar system in pteridophytes in detail. 8+2=10
 (b) Draw well-labelled diagram of mature prothallus of *Adiantum*. 8+2=10
- Part-F
7. (a) Draw well-labelled diagram of V.S. of archegoniophore of *Marchantia*. 7+3=10
 (b) Discuss morphology of *Funaria* gametophyte. 7+3=10
- Or
- (c) Give brief account of chemiautotrophic bacteria. 3+5+2=10