

*This question paper contains 3 printed pages.*

**4610**

Your Roll No. ....

**B.Sc. Prog. / II**

**AS**

**LS-201 : BIODIVERSITY – I – PLANTS**

**(Admissions of 2008 and onwards)**

**Time : 3 hours**

**Maximum Marks : 75**

*(Write your Roll No. on the top immediately  
on receipt of this question paper.)*

*Answer five questions in all.*

*Q. No. 1 is compulsory.*

*All parts of a question must be answered together.*

1. (a) Define the following:

- (i) Viroid
- (ii) Mesosome
- (iii) Algal blooms
- (iv) Heterospory
- (v) Cap cells
- (vi) Oogamy
- (vii) Heteroecious fungus
- (viii) Protostele
- (ix) Basidiocarp

**P. T. O.**

- (x) Antibiosis. 10×1=10
- (b) Write a short note on the economic importance of fungi. 5
2. (a) Discuss the role of pigments in the classification of algae.
- (b) Describe sexual reproduction in *Volvox*.
- (c) Draw L.S. of *Funaria* sporogonium. 3×5=15
3. (a) Describe the life cycle of macrandrous species of *Oedogonium*. How does it differ from the nanandrous one? 10
- (b) What is the common habitat of *Polysiphonia*? Mention the role of tetrasporophyte in its life cycle. 5
4. (a) Differentiate between the morphology and anatomy of coralloid root and normal root of *Cycas*.
- (b) Discuss symptoms and control measures of black rust disease of wheat.
- (c) Describe vegetative reproduction in *Marchantia*. 3×5=15
5. Draw the well-labelled diagrams (any three):
- (i) V.S. of gill of *Agaricus*
- (ii) L.S. of strobilus of *Equisetum*
- (iii) V.S. of sporophyll of *Pteris*

(iv) T.S. of *Pinus* needle

(v) *Nostoc* filament.

3×5=15

6. (a) List important differences between Bentham & Hooker and Takhtajan systems of classification.

7½

(b) Compare the ovules of *Pinus* and *Cycas*.

7½

7. Briefly describe (any *three*):

(i) Economic importance of angiosperms

(ii) Heterospory and seed habit

(iii) Apogamy and apospory

(iv) Heterotrichous and heterothallic habit. 3×5=15