

Total number of printed pages-4

3 (Sem-1) BOT M1

2021

(Held in 2022)

BOTANY

(Major)

Paper : 1.1

(Plant Kingdom, Algae and Fungi)

Full Marks : 60

Time : Three hours

***The figures in the margin indicate
full marks for the questions.***

1. Fill in the blanks with appropriate word(s) :
1×7=7

(a) Male reproductive structure of Chara
is known as _____ .

(b) In BGA, gaseous nitrogen is fixed in a
specialized cells, known as _____ .

Contd.

- (c) The chemical process by which glucose is broken down anaerobically into CO_2 and alcohol is known as _____.
- (d) _____ is the reserve food material found in red algae.
- (e) Tikka disease of groundnut is caused by _____.
- (f) Auxospores are found in _____.
- (g) The term 'heterothallism' was first coined by _____.

2. Define the following terms : $2 \times 4 = 8$

- (a) Obligate parasite
- (b) Epiphytes
- (c) Cryptogams and phanerogams
- (d) Halophytes

3. Write briefly on **any three** of the following : $5 \times 3 = 15$

- (a) General account of Bacillariophyceae
- (b) Role of algae in soil fertility

- (c) Heterothallism in Mucorales
- (d) Development of ascus and ascospores
- (e) Degeneration of sex in fungi

4. Answer **any three** of the following :

10×3=30

(a) What are different modes of sexual reproduction found in algae? Write about the evolution of sex in green algae.

3+7=10

(b) Discuss the role of pigments and reserve food materials in classification of algae.

10

(c) What is the name of causal organism of 'late blight of potato'? Give a clear and illustrated account of the life history of this fungus.

1+9=10

(d) What are heteroecious fungi? Describe the life history of an economically important heteroecious fungus.

2+8=10

(e) Describe briefly the structure and development of sex organs of Chara with the help of labelled diagram.

10

- (f) What are different spore bearing structures found in Basidiomycetes? Briefly write about their structure and development. $4+6=10$