

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 :

$10 \times 3 = 30$

(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