

Total No. of Printed Pages—3

1 SEM TDC BOT M 1

2019

(November)

BOTANY

(Major)

Course : 101

(Algae, Fungi and Lichen)

Full Marks : 48

Pass Marks : 19/14

Time : 2 hours

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

1. (a) Choose the correct answer of the following : 1×5=5

(i) Fucoxanthin is the characteristic pigment of Chlorophyceae / Phaeophyceae / Rhodophyceae.

(ii) Hormogonia / Heterocysts / Akinetes are sites of nitrogen fixation in some blue-green algae.

(iii) Polymorphism is found in Puccinia / Aspergillus / Peziza.

(2)

- (iv) Crozier formation is the characteristic feature of Mastigomycotina / Ascomycotina / Basidiomycotina.
- (v) The fungal component of lichen is called phycobiont / mycobiont / algobiont.

(b) Write short accounts of the following :

3×4=12

- (i) Dwarf male of *Oedogonium*
- (ii) Cystocarp of *Polysiphonia*
- (iii) Nutrition of fungi
- (iv) Heterothallism in *Rhizopus*

2. Give a detailed account of the phylogeny and distribution pattern of algae in India. Write briefly about the economic importance of algae.

4+4+4=12

Or

Describe with diagram the structure of the thallus and mode of reproduction in *Vaucheria*.

12

3. What are the criteria basing on which fungi are classified? Give a brief account of the classification of fungi suggested by Alexopoulos.

4+8=12

(3)

Or

Draw and describe the longitudinal section of the apothecium of *Peziza*. Also, compare the conidiophores of *Aspergillus* and *Penicillium* with diagram. $3+4+3+2=12$

4. What are lichens? Give an account of the various types of lichen with examples. What are the mutual advantages gained by algae and fungi in lichens? Why lichens are not found in cities? $1+3+2+1=7$

Or

Describe the nature of the thallus and growth-forms of lichen. Also, mention the economic importance of lichen. $3+2+2=7$
