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**1 SEM TDC BOT M 1**

**2013**

( November )

**BOTANY**

( Major )

Course : 101

**( Algae, Fungi and Lichen )**

Full Marks : 48

Pass Marks : 19

Time : 2 hours

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

1. (a) Choose and write the correct answer of the following : 1×3=3
- (i) Fucoxanthin is the characteristic pigment of Chlorophyceae / Phaeophyceae / Rhodophyceae.
  - (ii) Crozier formation is the characteristic feature of Mastigomycotina / Ascomycotina / Basidiomycotina.
  - (iii) The fungal component of lichen is called phycobiont / mycobiont / algobiont.

( 2 )

(b) Fill in the blanks : 1×2=2

(i) *Coleochaete* belongs to — class of algae.

(ii) Coenocytic mycelium is found in — group of fungi.

2. Write short answers to the following :

(a) Write the significance of 'dwarf male' of *Oedogonium*. 3

(b) Write about the structure and function of plurilocular sporangium of *Ectocarpus*. 3

(c) Mention the differences between autoecious and heteroecious fungi. 2

(d) Why is the class Deuteromycotina called as Fungi Imperfecti? 2

3. Give a detailed account of phylogeny and distribution pattern of algae in India. Give a brief account of the economic importance of algae. 4+4+4

Or

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

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4. What are the criteria basing on which fungi are classified? Give a brief account of the classification of fungi suggested by Alexopolous. Give a brief account of the distribution of fungi in India. 3+6+3

Or

Draw suitable diagram and describe the life history of *Penicillium*. Discuss the economic value of *Penicillium* in the modern society.

3+6+3

5. 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 lichen? Why are lichens not found in cities? 1+3+3+2

Or

What are the various vegetative structures met within lichen thallus? Give a brief account of the reproduction in lichen. 4+5

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