

**2019/TDC/ODD/SEM/BOTGE/  
BOTDSC-101T/124**

**TDC (CBCS) Odd Semester Exam., 2019**

**BOTANY**

**( 1st Semester )**

Course No. : BOTGE/BOTDSC-101T

**[ Biodiversity ( Microbes, Algae, Fungi,  
Archegoniates ) ]**

Full Marks : 50

Pass Marks : 20

Time : 3 hours

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

**UNIT—I**

**1. Answer any *three* of the following questions :**

**1×3=3**

- (a) What is a DNA virus?
- (b) What is a plant virus?
- (c) What are mesosomes?
- (d) What is sex pili?

**2. Answer any *one* of the following questions :** **2**

- (a) Why are viruses called absolute parasites?
- (b) Discuss asexual reproduction in bacteria.

( 2 )

3. (a) With a suitable diagram, describe the lytic cycle in bacteriophage. 5

Or

- (b) What is conjugation? Discuss different types of bacterial conjugation. 1+4=5

## UNIT—II

4. Answer any *three* of the following questions : 1×3=3

- (a) What is a coenocytic thallus?  
 (b) What is a colonial thallus?  
 (c) Why are algae regarded as autotrophic organism?  
 (d) Name one edible alga.

5. Answer any *one* of the following questions : 2

- (a) What is oogamy?  
 (b) What are akinetes?

6. (a) Write briefly Fritsch's classification of algae. 5

Or

- (b) Write a note on the economic importance of algae. 5

## UNIT—III

7. Answer any *three* of the following questions : 1×3=3

- (a) What are hyphae?

( 3 )

- (b) What is chitin?  
 (c) Name one edible fungus.  
 (d) Write the full form of VAM.

8. Answer any *one* of the following questions : 2

- (a) Why are lichens not found in cities?  
 (b) What is a basidium?

9. (a) Write a note on the classification of fungi. 5

Or

- (b) Write a note on ectomycorrhiza. State how they differ from endomycorrhizae. Give the importance of mycorrhizae in agriculture. 2+1+2=5

## UNIT—IV

10. Answer any *three* of the following questions : 1×3=3

- (a) What is columella in bryophytes?  
 (b) Name one homosporous pteridophyte.  
 (c) What is a gemma cup?  
 (d) What is rhizophore?

11. Answer any *one* of the following questions : 2

- (a) State two economic importance of bryophytes.  
 (b) Why is *Rhynia* regarded as early land plant?

12. (a) Describe the anatomy of thallus of *Marchantia* with suitable diagram. 5

Or

- (b) Write a note on heterospory and seed habit in Pteridophyta. 5

UNIT—V

13. Answer any *three* of the following questions : 1×3=3

- (a) Why are gymnosperms called softwood spermatophytes?
- (b) What is a ovuliferous scale?
- (c) What is a microsporophyll?
- (d) What is a megasporophyll?

14. Answer any *one* of the following questions : 2

- (a) State two xerophytic characters of gymnosperms.
- (b) Give the diagram of a *Pinus* needle in TS.

15. (a) Write a note on male gametophyte of *Cycas*. 5

Or

- (b) Write a note on economic importance of gymnosperms. 5

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