



**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 )



<http://www.elearninginfo.in>

( 3 )

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

Or

(b) What is conjugation? Discuss different types of bacterial conjugation.

1+4=

UNIT—II

4. Answer any three of the following questions :

1×3=

- (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 :

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

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

Or

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

UNIT—III

7. Answer any three of the following questions :

1×3=

(a) What are hyphae?

- (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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