

**2018/TDC/ODD/BOTG-101T/088**

**TDC (CBCS) Odd Semester Exam., 2018**

**BOTANY**

**( 1st Semester )**

Course No. : BOTGEE-101T/BOTDSC-101T

**[ Biodiversity (Microbes, Algae, Fungi and Archegoniate) ]**

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 : 1×3=3

- (a) What is the full form of PPLO?
- (b) Name the organism in which RNA serves as a genetic material.
- (c) What is the most common method of reproduction in bacteria?
- (d) Who first discovered bacteria?

2. Answer any *one* of the following :

2

(a) What is bacteriophage? Give one example.

(b) What do you mean by Transduction?

3. (a) With suitable diagram, describe the process of Lysogenic cycle in bacteriophage.

5

Or

(b) What do you mean by transformation? Describe the process of transformation in bacteria.

1+4=5

#### UNIT—II

4. Answer any *three* of the following :

1×3=3

(a) From where is agar-agar produced?

(b) What is the reserve food material of Red Algae?

(c) Name the characteristic pigment of Brown Algae.

(d) Name the female sex organ of *Fucus*.

5. Answer any *one* of the following :

2

(a) What do you mean by isogamy and anisogamy?

(b) What is heterocyst? What is its function?

6. (a) Describe the range of thallus structure in Algae with suitable diagram.

5

Or

(b) Describe the reproductive structures of *Oedogonium* with neat diagrams.

5

#### UNIT—III

7. Answer any *three* of the following :

1×3=3

(a) What is the reserve food material in Fungi?

(b) Name a fungus which is important for its use in genetic engineering.

(c) What is VAM?

(d) Which Fungi are commonly called 'gill' fungi?

( 4 )

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

- (a) What do you mean by Coenocytic Hyphae?
- (b) Differentiate between ecto- and endo-mycorrhiza.

9. (a) Describe briefly the life cycle of *Puccinia*. 5

Or

- (b) Write in brief about the structural organization of Lichen citing its importance. 5

## UNIT—IV

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

- (a) Which bryophyte is commonly known as 'peat moss'?
- (b) Name the fertile part in capsule of bryophytes.
- (c) Which pteridophyte is known commonly as 'house pail'?
- (d) Name one heterosporous pteridophyte.

( 5 )

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

- (a) Why are bryophytes considered as 'amphibians of plant kingdom'?
- (b) Differentiate between homospory and heterospory.

12. (a) Describe the process of reproduction in *Marchantia*. 5

Or

- (b) Write in brief the stelar evolution in Pteridophytes. 5

## UNIT—V

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

- (a) Name the gymnosperm which is the source of 'sago'.
- (b) Write the name of the gymnospermic plant which has winged pollen grains.
- (c) Name the shoot of gymnosperm that bears foliage leaves.
- (d) Which gymnospermic plant yields resin and terpentine?

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

- (a) What is coralloid root?
- (b) Mention the economic importance of gymnosperms.

15. (a) With neat diagram describe the leaflet of *Cycas*. 5

Or

- (b) Write briefly on the female gametophyte of *Pinus*. 5

★ ★ ★