



2018

Part

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 : $1 \times 3 = 3$

- (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)



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(5)

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.

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 stellar 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 terpine?

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(Turn Over)



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

13. Answer any three of the following: 3×3=9

- (a) Name the gymnosperm which is the source of 'gum'.
- (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 turpentine?