TDC Even Semester Exam., 2019

BOTANY

(Honours)

(4th Semester)

Course No. : BOTH–402

(Biology of Cryptogams)

Full Marks : 35

Pass Marks : 12

Time : 2 hours

The figures in the margin indicate full marks for the questions

Answer **five** questions, taking **one** from each Unit

UNIT—I

1. *(a)* What is heterocyst? What is its function? 1+1=2

(b) With neat diagram, describe the structure of an algae, from Chlorophyceae. 4

(c) What is pyrenoid? 1

2. *(a)* What is hypha? Name the types of hyphae found in fungi. 1+2=3

(b) Discuss the different chemical components of fungal cell wall. 4

UNIT—II

3. *(a)* What do you mean by isogamy, anisogamy and oogamy? Give examples. 1+1+1=3

(b) What do you mean by alternation of generation? Explain the phenomenon with special reference to Rhodophyceae. 1+3=4

4. *(a)* What do you mean by unilocular and plurilocular sporangia? Draw the structure. 2+2=4

(b) Write the structure of carpogonium with neat diagram. 3

UNIT—III

5. *(a)* What are haustoria? What is its function? 1+1=2

(b) Give an account of degeneration of sex in Ascomycetes. 5

6. *(a)* What do you mean by heterothallism? Explain the phenomenon in *Mucor* with neat diagram. 1+4=5

(b) Write a note on mycotoxin. 2

UNIT—IV

7. *(a)* Give an example of Hepaticopsida and Bryopsida each. 1

(b) With neat diagram, describe the structure of archegonium in *Riccia*. 4

(c) What is protonema? What is its function? 1+1=2

8. *(a)* Define columella and peristome. 1+1=2

(b) Explain the role of bryophytes as pollution indicator. 3

(c) Write about the economic importance of bryophytes in horticulture. 2

UNIT—V

9. Write notes on the following : 3½+3½=7

(a) Telome theory

(b) Evolution of stele in pteridophytes

10. *(a)* With neat diagram, describe the structure of megasporophyll and microsporophyll of *Selaginella*. 2½+2½=5

(b) Write the scientific names of two medicinally important pteridophytes. 1+1=2

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