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UG/4th Sem/BOT/19

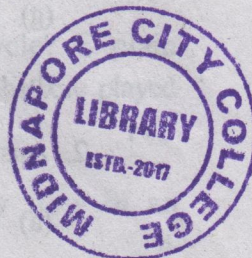
2019

B.Sc. (Hons.)

4th Semester Examination

BOTANY

Paper - C9T



Plant Ecology and Phytogeography

Full Marks : 40

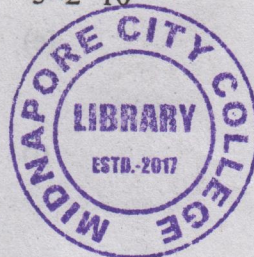
Time : 2 Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

1. Answer any five questions of the following :

5×2=10

- (a) What is homeostasis?
- (b) Define Niche and Biome.
- (c) Explain commensalism with example.
- (d) What is theory of Tolerance?
- (e) Distinguish between halophytes and heliophytes.



[Turn Over]

(2)

(f) Explain the terms biomass and standing crop.

(g) What are Pioneer and Climax species?

(h) What are allopatric and sympatric speciations?

2. Answer any *four* of the following : $4 \times 5 = 20$

(a) What is the difference between primary and secondary productivity? Explain the process of plant succession. $2+3$

(b) Give a brief account regarding the models of energy flow operating in an ecosystem. 5

(c) What is soil profile? Explain the role of climate in soil development. $2+3$

(d) What is hydrological cycle? Explain the adaptations of plants to wind velocity. $2+3$

(e) Define Ecotone and edge effect. Explain the different types of water present in the soil. $2+3$

(f) Define species and population. Explain the characteristic features of a population. $2+3$

(3)

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

$1 \times 10 = 10$

(a) i) What is Biogeochemical cycle? Explain Nitrogen cycle with reference to the role played by microorganisms. $1+5$

ii) Explain the model for energy flow in an ecosystem. 4

(b) i) What is Endemism? Give a brief account of the different Phytogeographical divisions of India. $1+5$

ii) Give a brief account of Tundra Biome. 4