

**2020/TDC(CBCS)/ODD/SEM/
EESHCC-301T/391**

**TDC (CBCS) Odd Semester Exam., 2020
held in March, 2021**

ECOLOGY AND ENVIRONMENTAL SCIENCE

(3rd Semester)

Course No. : EESHCC-301T

(Ecology and Ecosystems)

Full Marks : 50

Pass Marks : 20

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

SECTION—A

1. Answer any ten of the following questions :

2×10=20

- (a) Define habitat ecology.
- (b) What is autecology?
- (c) Write a note on ecozones.

(2)

- (d) State Shelford's law of tolerance.
- (e) What is natality?
- (f) Write about k-selection.
- (g) Write a note on age structure.
- (h) What is dispersion?
- (i) Define edge effect.
- (j) Write about positive ecological succession.
- (k) What is negative ecological succession?
- (l) Mention some features of community.
- (m) What is productivity?
- (n) What is lentic ecosystem?
- (o) Define Savannah.
- (p) Write about grazing food chain.
- (q) Name two sedimentary cycles.
- (r) What is cyclic flow?
- (s) Define unidirectional flow.
- (t) What is biotic accumulation?

(3)

SECTION—B

Answer *any five* questions

- 2. Write a note on resistance. Discuss Liebig's law of minimum. 2+4=6
- 3. Give an account of ecotypes and ecoclines. 3+3=6
- 4. Write a note on meta-population. Describe logistic growth curve. 2+4=6
- 5. Give a detailed account of density dependent limits to population growth. 6
- 6. Give an illustrated account of community structure and organization. 6
- 7. Write notes on keystone species and climax concept. 3+3=6
- 8. Write notes on grassland ecosystem and wetlands. 3+3=6
- 9. Define ecological pyramid. Describe various types of ecological pyramids with examples. 2+4=6
- 10. Give a detailed account of nitrogen cycle with special reference to biological nitrogen fixation. 6
- 11. Write notes on hydrological cycle and phosphorus cycle. 3+3=6

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