TDC Even Semester Exam., 2019

ECOLOGY AND ENVIRONMENTAL SCIENCE

(Honours)

(2nd Semester)

Course No. : EESH–203

(Ecology and Ecosystems)

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. Define ecosystem. Describe the major ecosystems with suitable examples. 2+5=7

2. What is ecological niche? How does it differ from habitat? Explain Shelford's law of tolerance with example. 1+2+4=7

UNIT—II

3. Explain the terms 'population' and 'meta-population'. What are *r* and *k* selection strategies? How does density and resource availability affect *r* and *k* selections? 3+3+1=7

4. *(a)* What are the basic types of human age pyramids?

(b) Define natality and mortality. 5+2=7

UNIT—III

5. Define community. Explain with suitable examples the negative and positive biotic interactions in a community. 1+6=7

6. Explain ecological succession. What are primary and secondary successions? What is a climax community? 2+3+2=7

UNIT—IV

7. Write short notes on any *one* of the following : 7

(a) Wetlands—function and significance

(b) Estuarine ecosystem—characteristic features and biotic components

8. *(a)* What is ecological pyramid?

(b) Describe the different types of ecological pyramids. 2+5=7

UNIT—V

9. Write short notes on any *one* of the following : 7

(a) Nitrogen cycle

(b) Sulphur cycle

10. With well-labelled diagram, describe the hydrological cycle. What are the factors affecting the water cycle? 7

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