

THIRD YEAR TDC SCIENCE- 2018-19

ZOOLOGY

PAPER-II : ECOLOGY AND BIOSTATISTICS

Duration : 3 hours

M.M.: 50

UNIT-I

- 1 Terminology and scope of Ecology.
- 2 Habitat and niche
- 3 Ecosystem: Components of ecosystem, energy flow and nutrient cycles, food chain, food web and ecological pyramids.
- 4 General idea of population and community ecology

UNIT-II

- 5 Freshwater environment: Physico-chemical features and biotic communities, productivity and eutrophication.
- 6 Marine environment: Characteristics, zonation, fauna and their adaptation, deep sea and estuarine fauna.
- 7 Terrestrial environment: General characteristics of desert, grass land and forest ecosystems.

UNIT-III

- 8 Environmental pollution: Biodegradable and non-biodegradable pollutants.
- 9 Air pollution: Source, nature, prevention and control, green house effect, ozone depletion and global warming.
- 10 Water pollution: Source, nature and abatement.
- 11 General account of noise pollution and radioactive pollution.

UNIT-IV

- 12 Conservation of natural resources: Wild life management, brief idea of national parks and wild life sanctuaries of India. Threatened and endangered species of India.
- 13 Environmental planning and environmental impact assessment.
- 14 Brief account of environmental Acts and Legislations (enacted after 1970).

UNIT-V

- 15 Concepts and applications of Biostatistics.
- 16 Frequency distribution, graphical presentation, mean, mode, median, standard deviation and standard error.
- 17 Correlation, T-test, Chi-square test.
- 18 Shanon and Weinner diversity index.