# THIRD YEAR T. D.C.SCIENCE, 2018-19

# **ENVIRONMENTAL SCIENCES**

## **PRACTICALS**

Duration: 5 Hrs.		M.M.:75
	Regular	Ex- Students
1. Major Exercise	15	25
2. Major Exercise	15	15
3. Minor Exercise	10	08
4. Spots	20	20
5. Viva – Voce	10	10
6. Record	05	
Total :	75	75

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### **ENVIRONMENTAL SCIENCES**

#### **PRACTICALS**

Duration: 5 Hrs.	M.M.:75
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- 1. Study of ambient air quality with respect to :
  - a) SPM
  - b) SO<sub>2</sub>
  - c) NO<sub>2</sub>
  - d) O<sub>3</sub>
- 2. Study of water quality with respect to:
  - a) BOD
  - b) COD
  - c) Colour
  - d) pH
  - e) Dissolved oxygen
  - f) Total hardness
  - g) Alkalinity
  - h) Nitrates
  - i) Phosphates
- 3. Study of soil characteristics with particular reference to :
  - a) Porosity
  - b) Bulk density
  - c) Air content
  - d) Water holding capacity
  - e) pH

- f) Organic carbon
- g) Total nitrogen
- h) Sulphate-sulphur
- i) Available phosphorus
- j) Calcium
- k) Metals
- 4. Calculation of Lc 50
- 5. Study of plankton diversity in lake waters and calculation of similarity index.
- 6. Examination of prepared histopathological slides to describe the toxicological effects of various environmental agents.
- 7. To study the effect of certain toxicants on the chromosomes of *Tradescantia* / Onion.
- 8. Field excursion to a polluted site, Forest and Wild life Sanctuary, National Park and submission of report.
- 9. Study of external and internal adaptation and characteristics of important hydrophytes and xerophytes.

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### **ENVIRONMENTAL SCIENCES**

#### **BOOKS RECOMMENDED:**

- 1 P.D.Sharma: Environmental Toxicology
- 2 K.C.Agarwal: Environmental Pollution Causes Effects and Control, Nidhi Publishers, Bikaner.
- 3 P.D.Sharma: Ecology and Environment, Rastogi Publications, Meerut.
- 4 F.Ranade (1984): Ecology of Natural Resources, John Wiley and Sons Singapore.

### **PRACTICAL:**

J. Pandey and M.S.Sharma: Environmental Science: Practical and Field Manual, Yash Publications, Bikaner.