

## SECOND 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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### PRACTICALS

Duration : 5 Hrs.

M.M.:75

1. Measurement of depth of visibility in a lake or pond with the help of a Secchi disk.
2. Studies of water samples for :
  - i) pH
  - ii) Dissolved oxygen
  - iii) Alkalinity
  - iv) Total hardness
  - v) Chlorides
  - vi) Dissolved organic matter
  - vii) Suspended particulates
3. Observation of zooplanktons and phytoplankton, benthos, nektons and macrophytes.
4. Estimation of primary productivity with the help of dark and light bottle experiment.
5. Sampling equipments.
6. Analysis of vegetation by line transect method.
7. Determination of cover in a grassland community with the help of chart quadrat method.
8. Determination of DBH of the tree species in a forest and calculation of the basal area.
9. Characteristic adaptation of animals of ecological significance.
10. Morpho – anatomical characteristics of hydrophytes and xerophytes.
11. Study of primary productivity (in terms of chlorophyll) in relation to light.
12. Study of animal communities in a terrestrial ecosystem.

## **SECOND YEAR T. D.C.SCIENCE, 2018-19**

### **ENVIRONMENTAL SCIENCES**

#### **BOOKS RECOMMENDED:**

- 1 P.D.Sharma: Ecology and Environment, Rastogi Publications, Meerut.
- 2 R.S.Ambasht : Ecology
- 3 Verma and Agarwal: Environmental Biology. S.Chand and Co. Ram Nagar, New Delhi.
- 4 V.B.Rastogi: Animal Ecology, Kedarnath Ramnath, Meerut.

#### **PRACTICAL:**

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