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M.Sc. RNLK-/Zoology/303/22

**2021**

**Zoology**

**[Third Semester]**

**Paper - 303**

**Ecology Spl. Paper**

*Full Marks : 40*

*Time : 2 hours*

*The figures in the right-hand margin indicate marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

*Illustrate the answers wherever necessary.*

**Group-A**

**Biodiversity and Conservation Ecology**

**1. Answer any two questions of the following : 2×2**

- a) State the difference between census and sampling.
- b) Explain the benefits of wild life conservation.
- c) Mention the principle and goals of CBD.
- d) Write a short note on agroforestry.

*(Turn Over)*

( 2 )

2. Answer any two from the following : 4×2

- a) Write a brief note on Wild life crime.
- b) Write the impact of urbanization on Biodiversity.
- c) State the impact of JFM on wild life conservation.
- d) Explain how DNA finger printing could prove helpful in wildlife studies.

3. Answer any one of the following : 8×1=8

- a) How vultures are associated with human well being?  
State the probable causes of sudden decline of vulture population.
- b) Discuss the significance of Arabari JF Model. 4+2+2

### **Group-B**

#### **Aquatic Ecology**

4. Answer any two from the following : 2×2=4

- a) What is intertidal zone?
- b) What is nekton?

( 3 )

- c) Differentiate between old and new world mangroves.
- d) Differentiate between vadose water and ground water.

**5. Answer any two from the following :** **4×2=8**

- a) Write a short note on –“Coastal Regulation Zone.” 4
- b) (i) Classify the bioremediation on the basis of  
Ex-situ and In-situ. 2  
(ii) Discuss any one In-situ bioremediation properly.  
2
- c) (i) What are the physical environment of wet lands?  
2  
(ii) Discuss briefly about the value of wetlands. 2
- d) Explain the Zonation pattern exhibited by salt marshes.  
4

**6. Answer any one from the following :** **8×1=8**

- a) (i) What are the environmental conditions favourable  
for mangroves? 2

( 4 )

- (ii) Explain the ecological services of mangroves. 4
- (iii) Classify the mangrove forests schematically. 2
- b) (i) What is thermocline? Briefly discuss about the temperature and density profiles with water depth for a lake. 2+2+2
- (ii) Schematically represent the major pathways of hydrological cycle. 2