

**B.Sc. 1st Semester (Honours) Examination, 2017 (CBCS)**

**Subject : Zoology**

**Paper : CC-II**

**Time: 2 Hours**

**Full Marks: 40**

*The figures in the margin indicate full marks.*

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

**Group-A**

Answer *any five* questions

2×5=10

1. (a) Define Liebig's law of the minimum.
- (b) Distinguish between autecology and synecology.
- (c) What is metapopulation?
- (d) Difference between *ex situ* and *in situ* conservation.
- (e) Illustrate edge effect.
- (f) What do you mean by food chain and food web?
- (g) What is species richness?
- (h) Define noosphere.

**Group-B**

Answer *any two* questions

5×2=10

2. (a) What is life table? Write the differences between *r* & *k* strategies of population. 1+4=5
- (b) What is community? Describe any two biodiversity indices with equation. 1+(2+2)=5
- (c) What do you mean by biogeochemical cycle? Draw a word diagram of N<sub>2</sub> cycle. 2+3=5
- (d) Write a short note on Lotka–Volterra equation for competition. 5

**Please Turn Over**

**Group-C**

Answer any two questions

10×2=20

3. (a) Describe three types of population growth equation. Write short notes on density dependent and independent factors on population regulation. 3+7=10
- (b) What is succession? Describe different models of succession. 2+8=10
- (c) Define niche. State the 'Box and Pipe' and 'Y' shaped models of energy flow in ecosystem. What do you mean by ecological efficiency? 2+6+2=10
- (d) What is conservation? Write four threats to tiger population. Describe management strategies for tiger conservation. 2+2+6=10