

4/ZOO-252 (Th) Syllabus-2023

2025

(May-June)

FYUP : 4th Semester Examination

ZOOLOGY

(Ecology and Environmental Biology)

(ZOO-252)

(Theory)

Marks : 56

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

Answer Question No. **1**, which is compulsory
and **any four** from the rest

1. Write notes on any *three* of the following :

4×3=12

(a) Levels of organization in the biosphere

(b) Edge effect with examples

- (c) Survivorship curves
- (d) Regulation of population density
- (e) Biomagnification
2. What are limiting factors? Explain Liebig's law of minimum and Shelford's law of tolerance with examples. $2+4\frac{1}{2}+4\frac{1}{2}=11$
3. (a) Describe the various morphological and physiological adaptations to temperature. 7
- (b) Briefly discuss the carbon cycle in the environment. 4
4. Enumerate on the various types of interspecific species interactions with suitable examples. 11
5. What is ecological succession? Explain the process of succession in hydrosere with suitable illustration. $2+7+2=11$
6. Define toxicology. Classify toxicants and briefly describe the applications of toxicology. $1+6+4=11$

7. Write short notes on any two of the following : $5\frac{1}{2}\times 2=11$
- (a) k - and r -selection
- (b) Species richness and species diversity
- (c) Acid rain
- (d) Renewable and non-renewable resources
