

4/ZOO-250(Th) Syllabus-2023

2026

(May-June)

FYUP : 4th Semester Examination

ZOOLOGY

**(Evolutionary Biology Adaptation
and Animal Behaviour)**

(ZOO-250)

(Theory)

Marks : 56

Time : 3 hours

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

Answer Question **1** which is compulsory
and **any four** from the rest.

1. Write notes on any four of the following :
3×4=12

- (a) Evolution as a unifying principle in biology**
- (b) Biological species concept**
- (c) Batesian mimicry**

26D/1670

(Turn Over)

- (d) Cryptic colouration
 - (e) Units of nervous system
 - (f) Evolutionary significance of mating system
2. Discuss the various evidences of evolution with suitable examples. 11
3. (a) Explain the process of natural selection and adaptation as drivers of evolution, 6
- (b) With suitable examples, explain evolutionary convergence. 5
4. With the help of suitable illustrations and examples, describe unsocial adaptation in terrestrial organisms. 3+8=11
5. (a) Briefly describe the mechanisms of adaptation. 5
- (b) Discuss the morphological and structural adaptations for flight in animals. 3+3=6
6. Discuss learned and complex behaviour in animals with examples. $5\frac{1}{2}+5\frac{1}{2}=11$
7. (a) Briefly describe the foraging behaviour and fixed action pattern. 6
- (b) Elucidate on the modes of communication seen in animals. 5

(3)

8. Briefly discuss on any two of the following :

$5\frac{1}{2} \times 2 = 11$

- (a) Comparative anatomy and homology
- (b) *Homo neanderthalensis*
- (c) Cave-dwelling adaptation
- (d) Hygienic behaviour in honeybee

★ ★ ★

1. Write notes on any four of the following :

- (a) Evolution as a scientific discipline
- (b) Biological species concept
- (c) Biological species concept
- (d) Biological species concept