

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

(2)

- (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

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