

B.Sc. Semester - 5 (NEP-2020) Examination**Oct/Nov - 2025****ZOO: Zoology in Indian Knowledge Systems and Evolutionary Biology (Major-11)****Time: 2:00 Hours****Marks: 50****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

Que.1 Answer the following questions. (10)

- (1) Define Indian Knowledge Systems (IKS). Discuss its scope with examples from traditional Indian sciences and literature.
- (2) Describe the symbolic role of animals represented in the national emblem of India.

OR

Que.1 Answer the following questions.

- (1) Write short note on the role of animals in rituals, ceremonies, and festivals of ancient India.
- (2) Discuss the use of elephants and horses in ancient Indian warfare with examples from historical texts or epics.

Que.2 Answer the following questions. (10)

- (1) Explain the concept of Rta (cosmic order) and its relation to ecological balance in ancient Indian Knowledge Systems.
- (2) Explain early concepts of animal welfare as found in Indian ancient texts, folklore, art, and rituals.

OR

Que.2 Answer the following questions.

- (1) Describe the significance of the Panchabhutas (five elements) and how they influence animal life according to Vedic or Upanishadic thought.
- (2) How did mathematics contribute to the understanding of biological ratios and patterns in traditional Indian studies?

Que.3 Answer the following questions. (10)

- (1) How do ancient texts describe the role of Vata, Pitta, and Kapha in animal physiology?
- (2) What are the key herbal remedies listed in Ashvashastra for horse diseases and in Gajashastra for elephant diseases?

OR

Que.3 Answer the following questions.

- (1) Discuss ayurvedic views on Digestion, Respiration, and Circulation in animal physiology.
- (2) Explain the ecological importance of sacred groves and describe its role in conserving local biodiversity with examples.

Que.4 Answer the following questions. (10)

- (1) Describe the epochs of the Cenozoic era and the important evolutionary events thereof.
- (2) Write a note on types of speciation.

OR

Que.4 Answer the following questions.

- (1) Describe the oriental realm in detail.
- (2) Briefly describe macroevolution with suitable examples.

Que.5 Answer the following questions. (10)

- (1) Explain the concept of Vahanas and give examples of at least four deities with their symbolic animal mounts and discuss meaning behind their association.
- (2) Explain impact of Rituchakra (seasonal cycles) on animal behavior, reproduction, and migration patterns.

OR

Que.5 Answer the following questions.

- (1) Give examples of key references for animal physiology found in Ayurvedic texts.
- (2) Describe the Australian realm in detail.
