



First Semester Examination
2022/2023 Academic Session

February 2023

BZT305- Vertebrate Zoology
(Zoologi Vertebrata)

Duration : 2 hours
(Masa : 2 jam)

Please check that this examination paper consists of THREE (3) pages of printed material before you begin the examination.

[Sila pastikan bahawa kertas peperiksaan ini mengandungi TIGA (3) muka surat yang bercetak sebelum anda memulakan peperiksaan ini.]

Instructions : Answer **FOUR (4)** questions. **Section A is COMPULSORY**. Answer **THREE (3)** questions from Section B. Each question carries 25 marks.

Arahan : Jawab **EMPAT (4)** soalan. **Bahagian A WAJIB dijawab**. Jawab **TIGA (3)** soalan daripada **Bahagian B**. *Tiap-tiap soalan bernilai 25 markah.*

In the event of any discrepancies, the English version shall be used.

[Sekiranya terdapat sebarang percanggahan pada soalan peperiksaan, versi Bahasa Inggeris hendaklah digunapakai].

SECTION A : (Compulsory)**[BAHAGIAN A : (WAJIB)]**

1. Discuss the fossil records of vertebrates from the Paleozoic Era.
[Bincangkan rekod fosil vertebrata dari Era Paleozoik.]

(25 marks / 25 markah)

SECTION B: Answer THREE (3) questions**[BAHAGIAN B: Jawab TIGA (3) soalan]**

2. Analyse the fish-amphibian transition in the context of early anatomical preadaptations and the environmental conditions under which the transition occurred.
[Berikan analisis transisi ikan-amfibia dalam konteks pra-adaptasi anatomi awal dan keadaan persekitaran di mana transisi berlangsung.]

(25 marks / 25 markah)

3. [a] Differentiate the proteroglyphous and solenoglyphous fangs and their types of venom in snakes.
[Bezakan taring "proteroglyphous" and "solenoglyphous" dan jenis bisanya pada ular.]

(10 marks / 10markah)

- [b] Classify the modes of fish reproduction.
[Klasifikasikan cara pembiakan ikan.]

(15 marks / 15 markah)

4. [a] Classify basic form of the bird wing.
[Kelaskan bentuk asas pada kepak burung.]

(15 marks / 15 markah)

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- [b] Determine the characteristics of monogamy and polygamy in birds.
[Tentukan ciri monogami dan poligami burung.]

(10 marks / 10 markah)

5. [a] Contrast the feeding types among tropical mammals.
[Bezakan jenis pemakanan antara mamalia tropika.]

(15 marks / 15 markah)

- [b] Differentiate the characteristics of the estrus and menstrual cycles in mammals.
[Bezakan ciri kitar estrus dan kitar haid mamalia.]

(10 marks / 10 markah)

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