

SULIT



First Semester Examination
2022/2023 Academic Session

February 2023

BBT308- Tropical Plant Ecology
(Ekologi Tumbuhan Tropika)

Duration : 2 hours
(Masa : 2 jam)

Please check that this examination paper consists of FOUR (4) pages of printed material before you begin the examination.

[Sila pastikan bahawa kertas peperiksaan ini mengandungi EMPAT (4) muka surat yang bercetak sebelum anda memulakan peperiksaan ini.]

Instructions: Answer **FOUR (4)** out of **FIVE (5)** questions, in English or Bahasa Malaysia. Each question carries 25 marks.

Arahan: Jawab **EMPAT (4)** daripada **LIMA (5)** soalan yang diberikan dalam Bahasa Inggeris atau Bahasa Malaysia. 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].

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1. [a] Describe wetland and give **TWO (2)** examples in Malaysia.
*[Huraikan tanah lembap dan berikan **DUA (2)** contoh di Malaysia.]*

(10 marks / 10 markah)

- [b] Characterize primary forest and secondary forest.
[Cirikan hutan primer dan hutan sekunder.]

(15 marks / 15 markah)

2. [a] Discuss the importance of treefall and gap dynamics in the forest.
[Bincangkan kepentingan pokok tumbang dan dinamik ruang terbuka di dalam hutan.]

(10 marks / 10 markah)

- [b] Correlate the coevolution of plants and Lepidopterans.
[Kolerasikan koevolusi tumbuhan dan Lepidopterans.]

(15 marks / 15 markah)

3. [a] Describe what happen to the forest after:
[Huraikan apa yang akan berlaku ke atas hutan selepas:

[i] A few large trees were removed.
Beberapa pokok besar telah dikeluarkan.

[ii] A few hectares of forest cover were removed.
Beberapa hektar penutup tumbuhan telah dikeluarkan.]

(10 marks / 10 markah)

[b] Determine the effectiveness of RSPO (Roundtable on Sustainable Palm Oil) in minimizing tropical rain forest destruction.
[Tentukan keberkesanan RSPO (Roundtable on Sustainable Palm Oil) dalam meminimumkan kemusnahan hutan hujan tropika.]

(15 marks / 15 markah)

4. [a] Describe the importance of Tropic of Cancer, Tropic of Capricorn and Equator line in change of seasons.
[Huraikan kepentingan Garisan Sartan, Garisan Jadi dan Garisan Khatulistiwa dalam perubahan musim.]

(10 marks / 10 markah)

[b] Identify how climate change affects the productivity of tropical forest ecosystem.
[Tentukan bagaimana perubahan iklim menjejaskan produktiviti ekosistem hutan tropika.]

(15 marks / 15 markah)

5. [a] Explain goals of RAMSAR Convention.
[Terangkan matlamat Perjanjian RAMSAR.]

(10 marks / 10 markah)

- [b] Compare the effectiveness in rain water absorption between:
[Bezakan keberkesanan penyerapan air hujan antara:]

- [i] Forested land and barren land.
[Tanah berhutan dan tanah tandus.]
- [ii] Tropical rain forest and oil palm plantation.
[Hutan hujan tropika dan ladang kelapa sawit.]

(15 marks / 15 markah)