
UNIVERSITI SAINS MALAYSIA

First Semester Examination
2013/2014 Academic Session

December 2014 / January 2013

BST 313/3 – Ecology and Management of Weeds
[Ekologi dan Pengurusan Rumpai]

Duration: 3 hours
[Masa : 3 jam]

Please ensure that this examination paper contains THREE printed pages before you begin the examination.

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

Instructions: Answer **FIVE** (5) out of **SIX** (6) questions, in English or Bahasa Malaysia. Each question carries 20 marks.

Arahan: Jawab **LIMA** (5) daripada **ENAM** (6) soalan yang diberikan dalam Bahasa Inggeris atau Bahasa Malaysia. Tiap-tiap soalan bernilai 20 markah.]

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

[Sekiranya terdapat sebarang percanggahan pada soalan peperiksaan. versi Bahasa Inggeris hendaklah diguna pakai].

1. Based on evolution and biogeography, explain how a grassy weed *Poa annua* spread to Antarctica and Arctic.

*[Berdasarkan evolusi dan biogeografi, jelaskan bagaimana suatu rumput rumpai *Poa annua* tersebar ke Antartika dan Artik.]*

(20 marks / 20 markah)

2. Name **TWO** (2) noxious weeds in wet rice fields, explain how these weeds are controlled and managed.

*[Namakan **DUA** (2) rumpai noksius di sawah padi dan jelaskan bagaimana rumpai tersebut dikawal dan diurus.]*

(20 marks / 20 markah)

3. Explain the differences between floating and submerged weeds based on habitats, life cycles and controls.

[Jelaskan perbezaan antara rumpai terapung dan terendam berdasarkan habitat, kitar hidup dan kawalan.]

(20 marks / 20 markah)

4. [a] Briefly explain four negative effects of weeds.

[Terangkan secara ringkas empat kesan negatif rumpai.]

(8 marks / 8 markah)

- [b] Describe **TWO** (2) ways weeds can be controlled using integrated pest management.

*[Huraikan **DUA** (2) cara rumpai boleh dikawal dengan menggunakan pengurusan perosak bersepadu.]*

(12 marks / 12 markah)

5. [a] Compare and contrast weed eradication and weed control.
[Banding dan bezakan pembasmian rumpai dan kawalan rumpai.]

(8 marks / 8 markah)

- [b] Describe methods for controlling and preventing weeds in rubber estates.
[Huraikan kaedah untuk mengawal dan mencegah rumpai di ladang getah.]

(12 marks / 12 markah)

6. [a] Weeds are detrimental to plantations as they compete with the crops. Briefly describe four items for which weed compete.
[Rumpai memudaratkan ladang kerana bersaing dengan tanaman. Huraikan secara ringkas empat perkara rumpai tersebut bersaing.]

(8 marks / 8 markah)

- [b] Describe allelopathic potential in weed management.
[Huraikan potensi alelopatik dalam pengurusan rumpai.]

(12 marks / 12 markah)