
UNIVERSITI SAINS MALAYSIA

First Semester Examination
Academic Session 2009/2010

November 2009

BBT 302/3 – Economic Botany
[Botani Ekonomi]

Duration: 3 hours
[Masa: 3 jam]

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

[Sila pastikan bahawa kertas peperiksaan ini mengandungi TUJUH 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. Distinguish between **ALL** of the following pairs:

[a] Essential oil and fatty oils (5 marks)

[b] Wine and mead (5 marks)

[c] Emmer wheat and Durum wheat (5 marks)

[d] Brown rice and polished rice (5 marks)

2. [a] Define 'Stimulating Beverages'.

(5 marks)

[b] Write about the source and economic importance of the **TWO** (2) most important stimulating beverages in the world.

(15 marks)

3. [a] Explain why the yeast of the genus *Saccharomyces* are preferred to ferment alcoholic beverages?

(6 marks)

[b] Write notes on the economic importance of algae, OTHER THAN being used as food.

(14 marks)

4. [a] List **THREE** (3) main wood products and write briefly on how EACH of these products is made.

(10 marks)

- [b] Increased demand for wood and wood product has led to felling of trees on large scale. Explain how forest certification program could help protect forests from destructive logging practices.

(10 marks)

5. Provide answer to **ALL** of the following:

- [a] Where is the centre of origin of rambutan (*Nephelium* sp.)

(2 marks)

- [b] Name the grain that is produced by crossbred wheat (*Triticum* sp.) and rye (*Secale* sp.)?

(2 marks)

- [c] What is the world's most important crop and why?

(4 marks)

- [d] Which grain is called the 'poor person's wheat' and why?

(4 marks)

- [e] Name **TWO** (2) of the world's most expensive spices. What are the reasons for its high price?

(8 marks)

6. Discuss the use and abuse of **ALL** of the following psychoactive drugs:

[a] Marijuana

(8 marks)

[b] Opium

(8 marks)

[c] Cocaine and Crack

(4 marks)

1. Bezakan antara **SEMUA** pasangan-pasangan berikut:

[a] Minyak pati dan minyak lemak

(5 markah)

[b] Wain dan mead

(5 markah)

[c] Gandum Emmer dan gandum Durum

(5 markah)

[d] Beras perang dan beras putih

(5 markah)

2 [a] Jelaskan 'Minuman Perangsang'.

(5 markah)

[b] Tulis mengenai punca dan kepentingan ekonomi **DUA** (2) minuman perangsang yang paling penting di dunia.

(15 markah)

3. [a] Terangkan mengapa ragi dari genus *Saccharomyces* lebih disukai untuk penapaian minuman beralkohol ?

(6 markah)

[b] Tulis nota tentang kepentingan ekonomi alga, SELAIN DARIPADA digunakan sebagai makanan.

(14 markah)

4. [a] Senaraikan **TIGA** (3) hasil utama kayu dan tulis secara ringkas bagaimana SETIAP SATU hasil tersebut dibuat.

(10 markah)

- [b] Peningkatan permintaan untuk kayu dan hasil kayu telah mengakibatkan penebangan pokok secara besar-besaran. Terangkan bagaimana program persijilan hutan dapat melindungi hutan daripada amalan penebangan pokok yang membinasakan.

(10 markah)

5. Beri jawapan kepada **SEMUA** soalan berikut:

- [a] Di mana pusat asal rambutan (*Nephelium* sp.)?

(2 markah)

- [b] Namakan bijian yang dihasilkan dari kacukan di antara gandum (*Triticum* sp.) dan rye (*Secale* sp.)?

(2 markah)

- [c] Apakah tanaman yang paling penting di dunia dan kenapa?

(4 markah)

[d] Bijirin manakah digelar 'gandum orang miskin' dan kenapa?

(4 markah)

[e] Namakan **DUA** (2) rempah yang paling mahal di dunia. Apakah sebab-sebab yang mangakibatkan harga tinggi rempah tersebut?

(8 markah)

6. Bincangkan kegunaan dan penyalah-gunaan **SEMUA** dadah psikoaktif berikut:

[a] Ganja

(8 markah)

[b] Candu

(8 markah)

[c] Kokain dan Crack

(4 markah)