

UNIVERSITI SAINS MALAYSIA

**Peperiksaan Semester Kedua
Sidang Akademik 1996/97**

April 1997

DTM 325/4 - Teknik Makmal Biologi II

Masa : [3 jam]

Jawab **LIMA** daripada **ENAM** soalan.

Tiap-tiap soalan bernilai 20 markah.

....2/-

1. Tuliskan nota pendek tentang tajuk-tajuk berikut:-
 - (a) Pemeriksaan tinja secara makroskopik. (5 markah)
 - (b) Objek-objek yang menimbulkan kekeliruan semasa pemeriksaan mikroskopik. (10 markah)
 - (c) Calitan tinja tebal Kato. (5 markah)
2. Sediakan satu kekunci dwicabang untuk membezakan order-order serangga yang berikut:-

**COLLEMBOLA, ANOPLURA, HYMENOPTERA, DIPTERA,
COLEOPTERA, ORTHOPTERA, LEPIDOPTERA, ODONATA.**

(20 markah)
3. Huraikan teknik pengumpulan dan pengawetan serangga. (20 markah)
4. Huraikan struktur dinding-sel bakteria Gram-positif dan Gram-negatif dengan menggunakan gambarajah. Bincangkan bagaimana bakteria ini boleh dibezakan. (20 markah)

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5. Apakah ujian IMViC ? Huraikan ujian-ujian ini dan terangkan prinsip biokimia yang terlibat dalam setiap ujian ini.
(20 markah)

6. Dengan menggunakan gambarajah huraikan struktur dan fungsi sel prokariot. Banding dan bezakan sel prokariot dengan sel eukariot dengan menggunakan jadual.
(20 markah)

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FIGURE 10

Figure 10 shows the results of the model calculations for the case of a 10% increase in the rate of growth of the population of the United States. The results are shown for the case of a 10% increase in the rate of growth of the population of the United States.

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