

BAHAGIAN A

Jawab semua soalan.
Answer all questions.

2.1 Aliran Tenaga dalam Ekosistem Energy Flow in an Ecosystem

1. Apakah yang dimaksudkan dengan pernyataan di bawah?

What is meant by the statement below?

Semua tumbuhan hijau ialah pengeluar
All green plants are producers

- A Tumbuhan hijau tidak boleh membuat makanannya sendiri
Green plants cannot make their own food
- B Tumbuhan hijau membuat makanan sendiri melalui proses fotosintesis
Green plants make their own food through the process of photosynthesis
- C Tumbuhan hijau terbahagi kepada dua jenis akar iaitu akar serabut dan akar tunjang
Green plants are divided into two types of roots which are fibrous root and tap root
- D Tumbuhan hijau membuat makanan sendiri melalui proses sintesis
Green plants make their own food through the process of synthesis

2. Rajah 1 menunjukkan satu piramid nombor.
Diagram 1 shows a pyramid of numbers.



Rajah 1 / Diagram 1

Antara berikut, yang manakah merupakan pengguna primer?

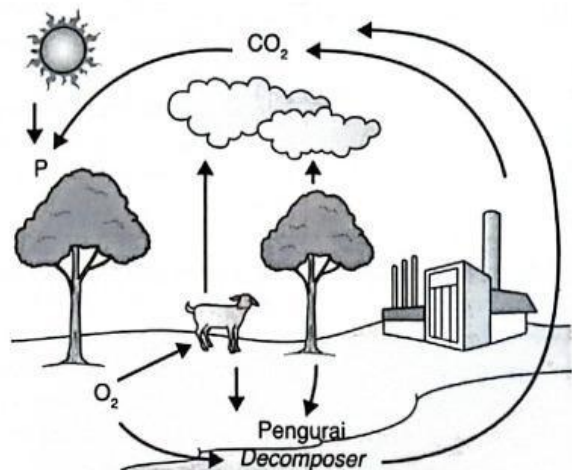
Which one of the following is the primary consumer?

- A Tikus
Rat
- B Ular
Snake
- C Pokok padi
Paddy plant
- D Helang
Eagle

2.2 Kitar Nutrien dalam Ekosistem Nutrient Cycle in an Ecosystem

3. Rajah 2 menunjukkan suatu kitar karbon dan kitar oksigen yang tidak lengkap.

Diagram 2 shows an incomplete carbon cycle and oxygen cycle.



Rajah 2 / Diagram 2

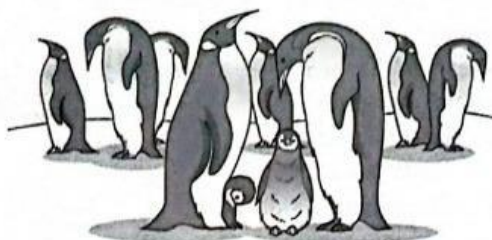
Apakah proses P?

What is process P?

- A Penyejatan
Evaporation
- B Peleburan
Melting
- C Fotosintesis
Photosynthesis
- D Kondensasi
Condensation

2.3 Saling Bersandaran dan Interaksi antara Organisma dan antara Organisma dengan Persekitaran
Interdependence and Interaction among Organisms, and between Organisms and the Environment

4. Rajah 3 menunjukkan suatu interaksi antara organisma.
 Diagram 3 shows an interaction between organisms.



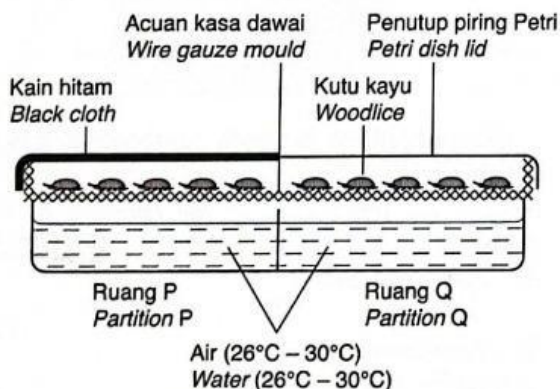
Rajah 3 / Diagram 3

Apakah istilah yang tepat menggambarkan interaksi tersebut?

What is the best term to describe the interaction?

- | | |
|--------------------------|--------------------------|
| A Habitat
Habitat | C Ekosistem
Ecosystem |
| B Populasi
Population | D Komuniti
Community |

5. Rajah 4 menunjukkan suatu kajian.
 Diagram 4 shows an experiment.



Rajah 4 / Diagram 4

Pada akhir eksperimen, piring Petri yang manakah mempunyai taburan kutu kayu yang paling banyak? Mengapa?

At the end of the experiment, which Petri dish has the most widely distributed woodlice? Why?

KBAT Menganalisis

- | | |
|---|--|
| A | P kerana air panas membekalkan haba kepada kutu kayu
P because the hot water supplies heat to the woodlice |
| B | Q kerana suhu sederhana sesuai dengan perkembangan kutu kayu
Q because the moderate temperature is suitable for the development of woodlice |
| C | P kerana kutu kayu hidup di tempat yang gelap
P because woodlice live in a dark place |
| D | Q kerana kutu kayu hidup di tempat yang cerah
Q because woodlice live in a bright place |

6. Mengapakah sesumpah menukarkan warna kulitnya untuk menyamai persekitaran?
 Why does a chameleon change its skin colour to match with the surrounding?

- | | |
|---|---|
| A | Sebagai isyarat kepada pasangan
As a signal to its mate |
| B | Mengawal keseimbangan air di dalam badan
Control the water balance in the body |
| C | Mengawal suhu badan
Control the body temperature |
| D | Penyamaran
Camouflage |

2.4 Peranan Manusia dalam Usaha Mengekalkan Keseimbangan Alam
Role of Humans in Maintaining a Balanced Nature

7. Antara berikut, kaedah yang manakah terbaik untuk mengekalkan hutan paya bakau?
 Which of the following is the best way to maintain a mangrove forest?

- | | |
|---|---|
| A | Pemeliharaan dan pemuliharaan
Preservation and conservation |
| B | Kaedah kawalan biologi
Biological control method |
| C | Memperbaharui sumber tenaga
Renewing source of energy |
| D | Mengawal penggunaan racun serangga
Control the use of pesticides |

8. Rajah 5 menunjukkan sebuah lori mengalami kemalangan ketika membawa sisa toksik.
Diagram 5 shows a lorry got into accident while carrying toxic waste.



Rajah 5 / Diagram 5

Jika anda melalui jalan tersebut, apakah tindakan yang perlu anda lakukan?

If you are passing through that road, what action should you take?

KBAT Menilai

- A Menularkannya di media sosial
Viral it on social media
- B Membantu membersihkan tumpahan tersebut
Help to clean up the spill
- C Menjauhi kawasan kemalangan
Move away from the accident area
- D Menghubungi pihak bomba dan penyelamat
Call the fire and rescue department

9. Petikan berikut menunjukkan suatu keratan daripada artikel akhbar.

The following shows an excerpt from a newspaper article.

POKOK SENA – Petani terpaksa menanggung kerugian apabila kira-kira 30 hektar sawah milik mereka diserang tikus.

POKOK SENA – Farmers have to bear losses when about 30 hectares of their paddy fields were attacked by rats.

[Sumber: Dipetik dan diubahsuai daripada Harian Metro, 19 Ogos 2019]

[Source: Extracted and adapted from Harian Metro, 19 August 2019]

Apakah tindakan yang sesuai diambil oleh petani untuk menyelesaikan masalah ini?

What suitable action should the farmers take to solve this problem?

KBAT Mengaplikasi

- A Menggunakan jentera moden
Use modern machinery
- B Menggunakan racun perosak
Use pesticides
- C Menggunakan kaedah kawalan biologi
Use biological control method
- D Mengadakan gotong-royong untuk membakar padi
Organise a 'gotong-royong' to burn the paddy

10. Apakah yang akan berlaku jika orang ramai kerap membuang sampah-sarap ke dalam sungai?

What will happen if many people frequently dump rubbish into the river?

KBAT Menilai

- A Banjir kilat
Flash flood
- B Pencemaran udara
Air pollution
- C Pembebasan gas beracun
The release of poisonous gas
- D Sistem respirasi manusia terganggu
The human respiratory system will be impaired

11. Berikut menunjukkan gas-gas yang boleh mencemarkan alam sekitar.

The following shows gases that can cause environmental pollution.

- Nitrogen dioksida
Nitrogen dioxide
- Sulfur dioksida
Sulphur dioxide

Apakah implikasi daripada pembebasan gas-gas tersebut?

What is the implication of the emission of these gases?

KBAT Menilai

- A Hakisan tanah
Soil erosion
- B Pemanasan global
Global warming
- C Penipisan lapisan ozon
Depletion of ozone layer
- D Hujan asid
Acid rain