

SULIT

NO. KAD PENGENALAN

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ANGKA GILIRAN

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LEMBAGA PEPERIKSAAN
KEMENTERIAN PELAJARAN MALAYSIA

SIJIL PELAJARAN MALAYSIA 2010

6355/1

ENGLISH FOR SCIENCE AND TECHNOLOGY

Kertas 1

Nov./Dis.

1 $\frac{1}{4}$ jam

Satu jam lima belas minit

JANGAN BUKA KERTAS SOALAN INI SEHINGGA DIBERITAHU

1. Tulis nombor kad pengenalan dan angka giliran anda pada ruangan yang disediakan.
2. Kertas soalan ini mengandungi dua bahagian: **Bahagian A** dan **Bahagian B**.
3. Jawab semua soalan.
4. Tulis semua jawapan anda untuk **Bahagian A** dan **Bahagian B** di ruang yang disediakan.

Untuk Kegunaan Pemeriksa			
Kod Pemeriksa:			
Bahagian		Markah Penuh	Markah Diperoleh
A	Soalan 1	10	
	Soalan 2	10	
B		30	
Jumlah		50	

Kertas soalan ini mengandungi 11 halaman bercetak dan 1 halaman tidak bercetak.

[Lihat halaman sebelah



Section A

[20 marks]

[Time suggested : 30 minutes]

Question 1

Read the following text and complete the given task.

Spirulina is classified as either blue-green algae or blue-green bacteria. It is a popular food supplement in Japan and is marketed as a nutritional supplement in the United States.

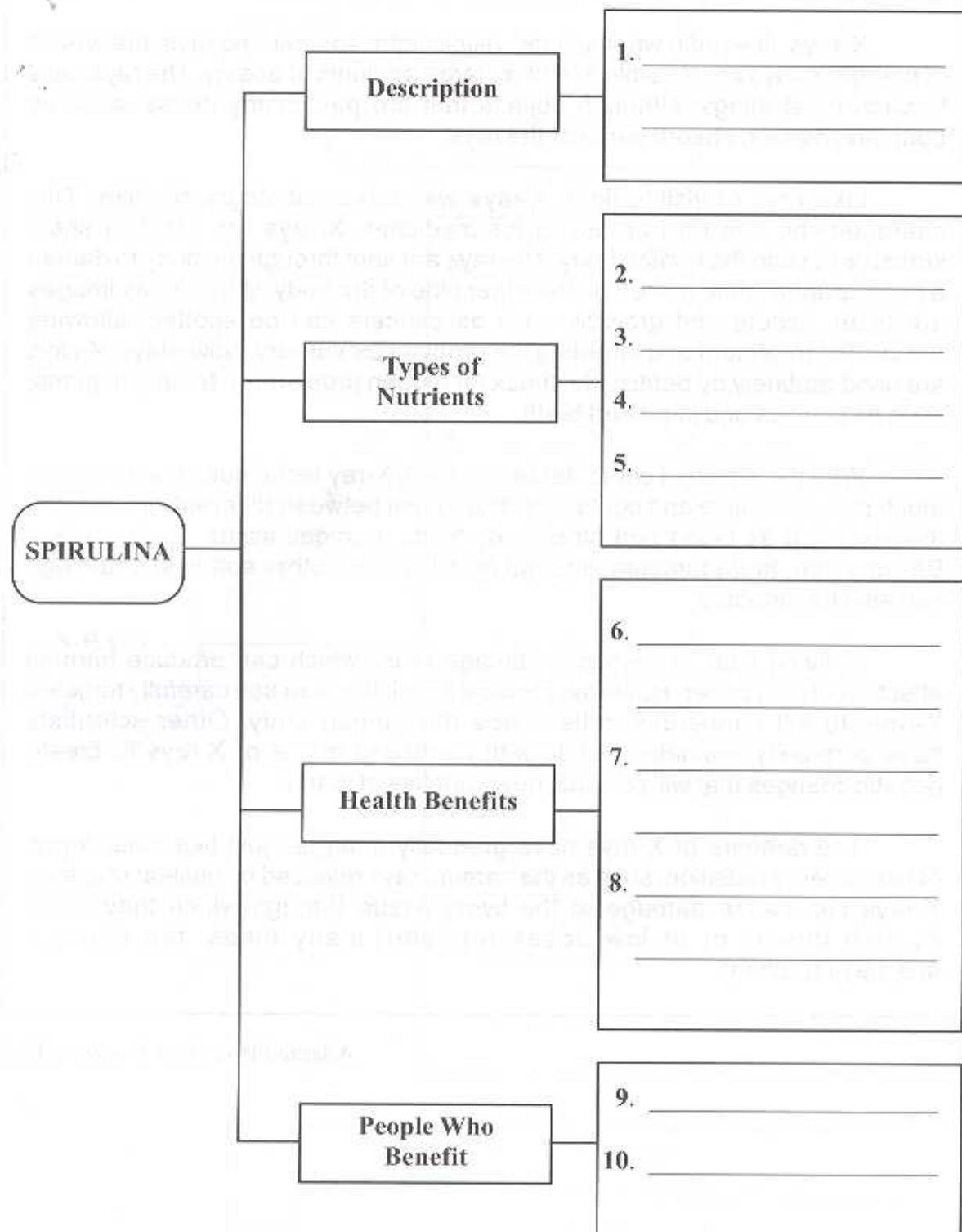
Spirulina is called a whole food because it contains an almost complete range of nutrients. It is also a rich source of easily digested protein. It contains chlorophyll, gamma-linolenic acids (GLA) and some unique pigments.

Spirulina also contains beneficial vitamins and minerals such as the B group of vitamins and minerals such as iron, calcium and magnesium which are important for energy metabolism, proper functioning of enzyme activities, ensuring teeth health, nerve health, and normal contractions and relaxation of the muscles. Furthermore, iron is needed in the formation of haemoglobin and myoglobin that transport oxygen from the lungs to the tissues and muscle cells.

People who benefit from taking organic spirulina are the elderly, children, students who are away from home, working adults, athletes and vegetarians.

Adapted from *New Straits Times*, 2008

Based on the information from the text, complete the graphic organiser below.



[10 marks]

[Lihat halaman sebelah
SULIT

Question 2

Read the following text and complete the given task.

X-rays, like radio waves, heat, visible light, and gamma rays, are waves of energy. X-rays are invisible and carry large amounts of energy. The rays pass through most things, although objects that are particularly dense, such as bone and metals, absorb some of the rays.

Like rays of visible light, X-rays will darken photographic film. This characteristic can be harnessed for medicine. X-rays are used to show structures inside the human body. The rays are sent through the body to darken a photographic plate placed on the other side of the body. When X-ray images are taken, ulcers and growths such as cancers can be spotted, allowing the correct treatment and targeting the problem for surgery. Nowadays, X-rays are used routinely by dentists to check for hidden problems in teeth and gums, such as cavities and impacted teeth.

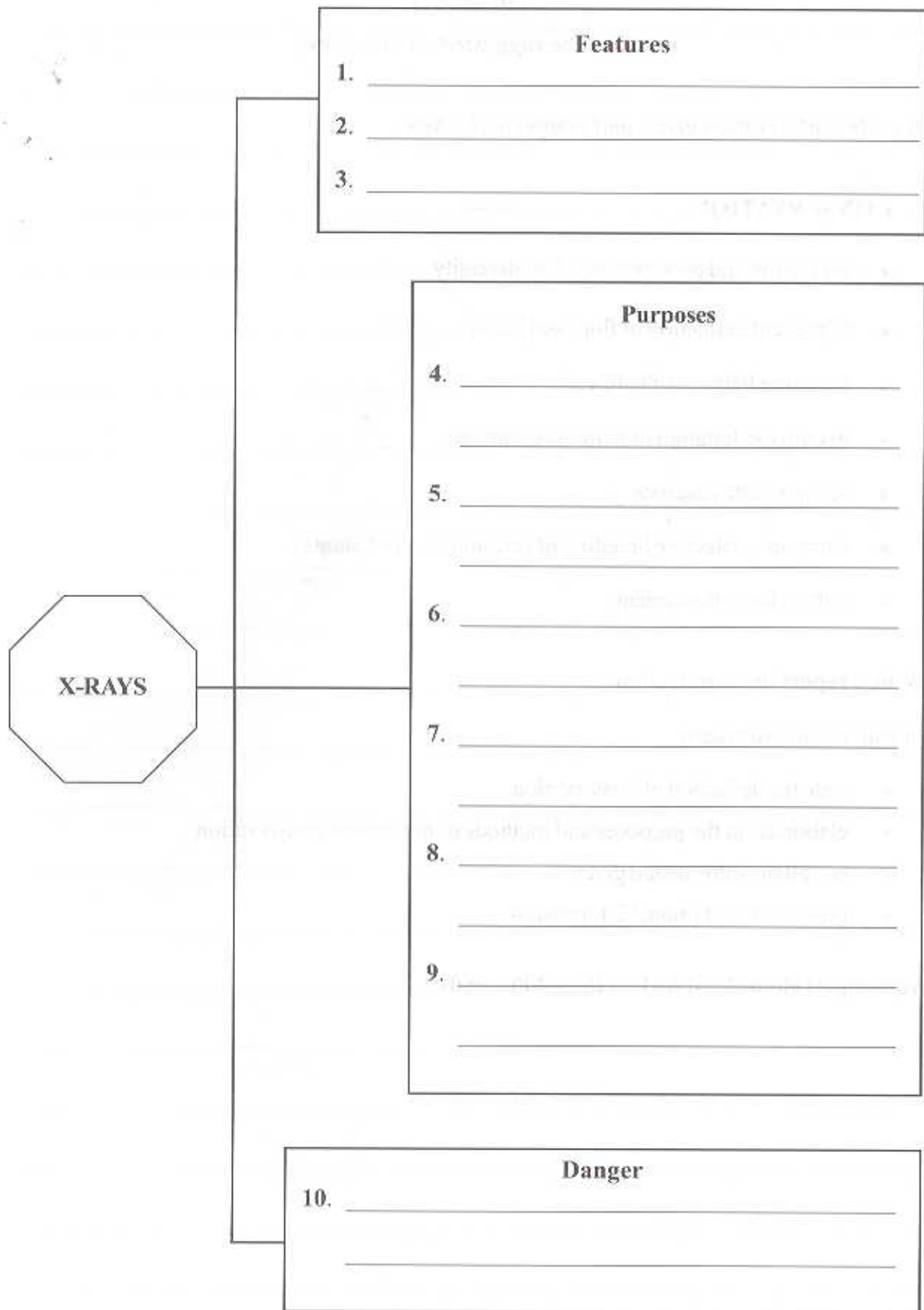
With the arrival of computer technology, X-ray techniques have become much more sensitive and could now distinguish between different kinds of soft tissues, such as blood and other body fluids, nervous tissue, and muscles. Besides that, brain tumours, internal bleeding, and other soft tissue damage can also be detected.

In living cells, X-rays can damage DNA, which can produce harmful effects such as cancer. However, medical specialists can use carefully targeted X-rays to kill cancerous cells inside the human body. Other scientists have purposely irradiated seeds with controlled doses of X-rays to create genetic changes that will produce new varieties of plants.

The dangers of X-rays have gradually emerged just like other forms of high-energy radiation, such as the gamma rays released by nuclear reactors. X-rays can cause damage to the living tissue through which they pass. At high doses, or at low doses repeated many times, the damage may be permanent.

Adapted from *Life Science*, 2003

Based on the information from the text, complete the graphic organiser below.



[10 marks]

[Lihat halaman sebelah

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Section B

[30 marks]

[Time suggested : 45 minutes]

Read the information given and complete the task.

CONSERVATION

- ◆ protection and preservation of biodiversity
- ◆ to prevent extinction of flora and fauna
- ◆ to ensure balance of nature
- ◆ to curb exploitation of natural resources
- ◆ set up nature reserves
- ◆ carry out protective breeding of rare animals and plants
- ◆ tighten law enforcement

Write a **report** on conservation.

In your report, you **must**

- state the definition of conservation
- elaborate on the purposes and methods to implement conservation
- use **all** the information given
- provide any additional information

Your report **should not be less than 200 words**.

(The page contains 20 horizontal lines for writing.)
