



Concours ITA session 2015

Composition : **Anglais 3**

Durée : **2 Heures**

Read the text and fulfill the tasks below.

By 2050 there will be another 2.5 billion people on the planet. How to feed them? Science's answer: a diet of algae, insects and meat grown in a lab. How can we feed the 2.5 billion more people – an extra China and India – likely to be alive in 2050?

The UN says we will have to double our food production. But anyway, there are already one billion chronically hungry people today, not much more virgin land to farm, climate change will only make farming harder to grow food, the oceans are overfished, and much of the world faces growing water *shortages*. We may need a total rethink over how we use land and water. So enter a new generation of radical farmers, novel foods and bright ideas.

Algae

How do you free up huge amounts of farmland to grow more food for humans? Easy – switch to commercial algae farms. Algae are simple, single-cell organisms that can grow very rapidly at sea, in polluted water and in places that would normally kill food crops. They can provide fats, oils and sugars. Algae are at the bottom of the food chain: they are eaten by everything from the tiniest shrimp to the great blue whales. They are the base of all life and must be the future; they are already widely eaten in Japan and China in the form of seaweeds.

Artificial meat

It looks like meat, feels like meat and it is meat, but it doesn't come from an animal. Instead, artificial or "cultured" meat is grown from *stem cells* in giant *vats*.

Cattle now occupy nearly one quarter of all cultivable land, and growing crops for animal feed takes up another 25%. Nevertheless, studies show that artificial meat uses far less water, energy and land. In addition, mass production of animals in factory farms and use of growth hormones and antibiotics is already considered questionable. Artificial meat is researched by scientists in Holland and Britain. The first artificial hamburger could be developed next year.

Insects

Many bugs are rich in protein, low in fat and cholesterol and high in calcium and iron, and insect farms need little space. Environmentally, they beat conventional farms, too: they convert plants into *edible* meat faster than usual cattle, they emit fewer *greenhouse gases* and they can eat paper, algae or industrial waste that we usually throw away. Locusts, grasshoppers, spiders, wasps, worms, ants

and beetles are not on most European or US menus but at least 1,400 species are eaten across Africa, Latin America and Asia. Now, with rising food prices and worldwide land shortages, we will see “insect farms “very soon in France.

The advantages of "micro-livestock" farming are great, says the European Union. The EU is offering its member states \$3 million to promote the use of insects in cooking.

Adapted from The Observer, Sunday 22 January 2012.

Vocabulary:

Shortage means something is *lacking* = there isn't enough

Cattle are the animals that we eat (cow, pig, sheep, goat, etc.)

stem cell: “cellule souche ”

Edible means you can eat it

CO² is a *greenhouse gas*.

I-COMPREHENSION CHECK (8 marks)

A-Questions: Answer the following questions after reading the above text.

- 1-Can you propose a title to the above text that best fits its content?
- 2- What are, according to the text, the alternatives to solve the food crisis the world is facing?
- 3-What are the advantages of eating insects?
- 4- Why does the use of artificial meat raise ethical concern?

B-Answer by True (T) or False (F) according to your understanding of the text and justify your responses. Answer like: 9-T (justifications)

- 1-Growing insects use a lot of space
- 2-Many animals in the sea eat algae on a daily basis
- 3-Eating insects can induce cholesterol
- 4-Algae can easily grow in polluted water
- 5-There is a lot of fat in bugs
- 6-Algae are organisms having only one cell
- 7-Nobody eat algae on the planet
- 8-There is not any calcium in insects

II- WRITING (7 marks)

Is the use or consumption of lab-grown meat to be encouraged by governments? Why or why not?

Do not exceed 15 lines.

(NB: lab - grown meat = artificial meat)

III- LANGUAGE IN USE (5 marks)

A-Match the beginnings to the proper ends to make meaningful sentences. *Answer like: 6- j.*

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|--------------------|-----------------------------------|
| 1-Climate change | a- has to increase by 100 percent |
| 2- Farming land | b- has to be regulated |
| 3- Food production | c- will soon not be enough |
| 4-Fishing | d-will make farming harder |
| 5- Water supplies | e- will soon be lacking |

B- Fill in the gaps with the appropriate words or right tenses and forms.

1-In 2050, there will not be _____ food for everybody.

2-The water shortages (to make) farming more difficult in the next years.

3-Soon, there will be a _____ of water supplies.

4-40 years before there (to be) vast surfaces of virgin lands.

5-There (to be) many hungry people on the planet in the coming years.