

## I. Read the following text and answer the questions below.

Saving the planet one plateful at a time does not mean cutting back on meat, according to new research: the trick may be to switch our diet to insects and other creepy-crawlies.

The raising of livestock such as cows, pigs and sheep occupies two-thirds of the world's farmland and generates 20% of all the greenhouse gases driving global warming. As a result, the United Nations and **(A)** senior figures want to reduce the amount of meat we eat and the search is on for alternatives. A policy paper on the eating of insects is being formally considered by the UN Food and Agriculture Organization. Professor Arnold van Huis, a scientist at Wageningen University in Belgium and the author of the UN paper, says eating insects has **(B)** \_\_\_\_\_. "There is a meat crisis," he said. "The world population will grow from six billion now, to nine billion by 2050 and we know people are consuming more meat. Twenty years ago the average was 20kg. It is now 50kg, and will be 80kg in 20 years. If we continue like this, we will need another Earth."

Van Huis is an enthusiast for eating insects, but given his role as a consultant to the FAO, he can't be dismissed as an eccentric. "Most of the world already eats insects," he points out. "It is only in the Western world that we don't. Psychologically, we have a problem with it. I don't know why, as we eat shrimps, which are very comparable."

The advantages of this diet include insects' high levels of protein, vitamin and mineral content. Van Huis's latest research shows that farming insects produces far less greenhouse gas than livestock. Breeding commonly eaten insects such as locusts, crickets and meal worms, emits 10 times less methane than livestock.

Being cold-blooded, insects convert plant matter into protein extremely efficiently, Van Huis says. **(C)** \_\_\_\_\_, he argues, the health risks are lower. He acknowledges that in the West, the idea of eating insects is a hard one to promote: "It is very important how you prepare them; you have to do it very nicely, to overcome **(D)** the yuk factor."

More than 1,000 insects are known to be eaten by choice around the world, in 80% of nations. They are most popular in the tropics, where they grow to large sizes and are easy to harvest.

The FAO's field officer Patrick Durst, says the FAO's priority will be to boost the eating of insects where this is already accepted but has been in decline, due to Western cultural influence. He can also see a step-by-step process to wider use. First, insects could be used to feed farmed animals such as chicken and fish which eat them naturally. Then, they could be used as ingredients. Van Huis adds: "Later, we're looking at ways of grinding the meat into some sort of patty, which would be more recognizable to Western tastes."

One of the few suppliers of insects for human consumption in the UK is Paul Cook, whose business Osgrow is based in Bristol. However, **(E)** no matter how insects are marketed or presented, Cook is not convinced they will ever become more than an exotic fashion. "They are in the fun element ... But I can't see it ever catching on in the UK in a big way."

## LOCAL TREATS

<b>Thailand</b> Dishes include fried red ants, and June beetles.	<b>Japan</b> Dishes include fly larvae in sugar and candied grasshoppers.
<b>Papua New Guinea</b> Sago grubs in banana leaves are a local delicacy.	<b>Colombia</b> "Fat-bottomed" ants are a popular snack, fried and salted.
<b>Cambodia</b> Deep-fried tarantulas are popular with locals and tourists.	<b>Australia</b> Witchetty grubs are a traditional part of the Aboriginal diet.
<b>Mexico</b> The agave worm is eaten on tortillas, and grasshoppers are toasted.	<b>South Africa</b> Locusts lend interest to the staple dish of cornmeal porridge.

**I.1.** Choose the most appropriate title for the text from the choices below.

- a. Insect-Eaters Pose Dangers for the Environment
- b. Meat Sources Threatened by Insect Populations
- c. Eating Insects: the Eco-Friendly Meat
- d. High-Protein Snacks from around the World

**I.2.** Choose the most appropriate answer for each question.

**(1)** Which word or phrase is the closest in meaning to **(A)**?

- a. reliable statistics
- b. important representatives
- c. high costs
- d. advanced calculations

**(2)** Choose the most appropriate word for **(B)**.

- a. stages
- b. advantages
- c. difficulties
- d. acceptance

**(3)** Why is there a crisis in the meat industry?

- a. The demand for meat is becoming greater than the supply.
- b. Tastes are changing, and more people want something new.
- c. The costs of raising cattle are becoming too great.
- d. People are becoming much fatter due to eating meat.

**(4)** According to the text, which sentence is true?

- a. Over one thousand insects are eaten every day in tropical countries.
- b. Eighty percent of people around the world choose to eat insects.
- c. Tropical insects are cheap, big, and easily available.
- d. A great variety of insects are eaten across the globe.

**(5)** Choose the most appropriate word or phrase for **(C)**.

- a. However
- b. Nevertheless
- c. In addition
- d. For example

**(6)** Which of the following best explains **(D)**?

- a. A feeling of disgust and therefore dislike
- b. A psychological fear of progress
- c. A bad taste which leads to disease
- d. Not wanting to spend money on an expensive thing

- (7) Why does the FAO need to persuade some nations to continue eating insects?
- a. It is fashionable in those countries.
  - b. Pressure from outside cultures is causing a decline.
  - c. There are health risks from poorly prepared insects.
  - d. Numbers of insects are becoming uncontrollable.
- (8) Which insects are both enjoyed in more than one country as LOCAL TREATS?
- a. locusts and grubs      b. spiders and shrimps      c. grasshoppers and ants      d. beetles and worms
- (9) In which country is eating insects an attraction for visitors?
- a. Japan                      b. Cambodia                      c. Thailand                      d. Australia
- (10) Which of the following is NOT a benefit of moving to insect consumption?
- a. A reduction in harmful greenhouse gases
  - b. Benefits to the health of consumers
  - c. The preservation of traditional food cultures
  - d. A reduction in the time necessary for preparation

I.3. Translate the underlined part (E) in the text into Japanese.

I.4. Would you buy insects to eat? Why/Why not? Write your reason in English within 25 words.



II. From sentences or clauses A to H below, choose the most appropriate combination to complete the paragraph.

Ultraviolet B radiation from the sun produces 90 % of vitamin D in human beings; ( 1 ). However, at high latitudes, levels of sunlight in winter are often so low that ( 2 ). Avoidance of the sun's rays by covering up or use of sunscreen can compound this problem, and ( 3 ). Cancer Research UK recognizes the need to balance skin cancer prevention with generation of adequate vitamin D, but specified that "the skin efficiently produces vitamin D at levels of sun exposure below those that cause sunburn...when it comes to sun exposure,( 4 )."

A major concern is that ( 5 ) without protection to boost vitamin D synthesis. Indeed the American Academy of Dermatology argues that ( 6 ), advocating instead for dietary supplementation as a safe source of vitamin D. A report published in the British Journal of Nutrition emphasizes that in the UK, ( 7 ) and avoid life-threatening complications for their babies.

Despite the simmering debate about sun exposure surrounding vitamin D, the SUNLIGHT consortium's genome-wide association study, published in *The Lancet* today, should add to our understanding of the genetic basis of individual variability in the synthesis of vitamin D. These findings could eventually help to identify ( 8 ). Until such potential applications come to the fore, the message about sun exposure has to be sensibly moderate.

- A. the risks of sun exposure are greater than the benefits
- B. little and often is best
- C. who is most at risk of vitamin D insufficiency and related diseases
- D. vitamin D insufficiency is common
- E. a unified approach to supplementation is needed to deal with vitamin D deficiency in pregnant women
- F. it is thought to have contributed to a recent increase in metabolic bone disease
- G. only a very small proportion can be obtained through diet
- H. people might seek prolonged sun exposure

II.1. Choose the most appropriate combination for (1) to (4).

- a. B → F → D → G
- b. G → D → F → B
- c. F → G → B → D
- d. D → B → G → F

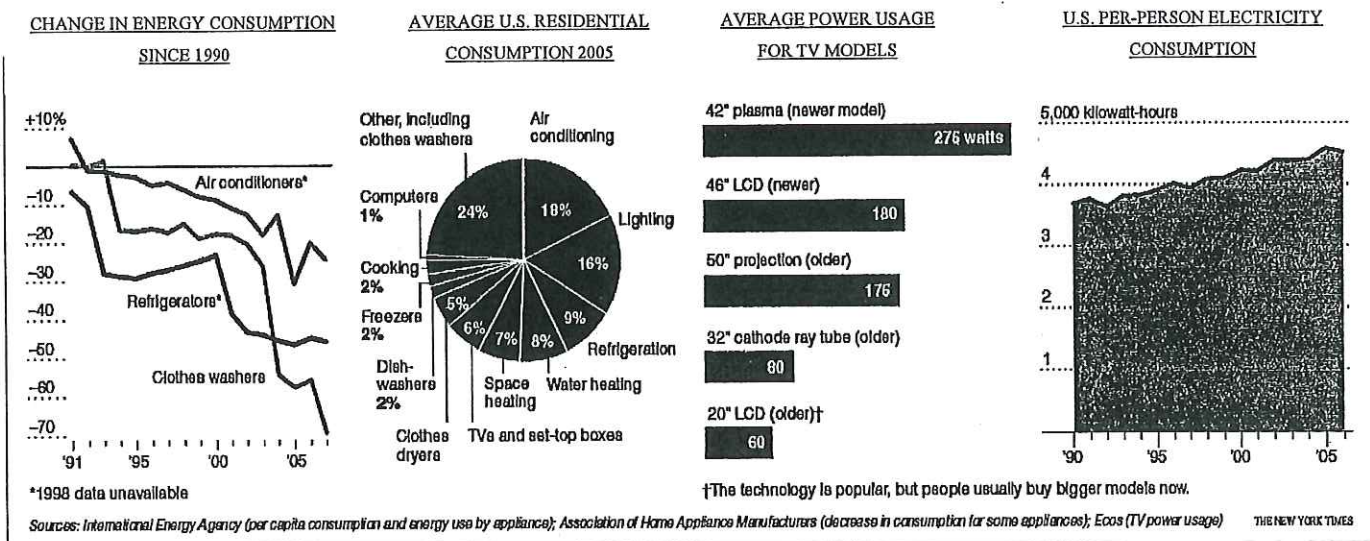
II.2. Choose the most appropriate combination for (5) to (8).

- a. E → H → C → A
- b. A → C → H → E
- c. H → A → E → C
- d. C → E → A → H

II.3. According to the above passage, which sentence is true?

- a. Owing to the sun's rays, we can get vitamin D, so we don't have to avoid sun exposure at all.
- b. High levels of vitamin D have a harmful influence on pregnant women.
- c. Sun exposure is not so necessary because we can get enough vitamin D from our daily meals.
- d. For healthy lives, we need to consider modest sun exposure together with protecting our skin.

III. Based on the graphs below, choose the most appropriate answer to fill in each blank.



As technology advances, it would seem natural that our household appliances have become more energy efficient, and result in a ( 1 ) hole in our wallets when the electricity bill drops through the letterbox. Unfortunately, that looks like being ( 2 ) the truth. Consumption for the average American has risen around ( 3 ) kilowatt-hours over the 16 or so years since 1990. How can this be true, when the amount of energy clothes washers use has ( 4 ) by over sixty percent over the same period? With appliances like clothes washers occupying ( 5 ) percent of the average home's consumption, how did this happen? Well, one reason researchers have found is that homes have simply started to use more items. Besides the biggest usual suspects of washers, ( 6 ) and lights, a variety of appliances are sucking up the difference. An especially ( 7 ) one is the rise of the big flat-screen televisions. With TV packages taking up 6% of household energy in ( 8 ), they are worth a closer look. The biggest offenders are the new large plasma screens, eating up over ( 9 ) as much electricity than the old LCD screens. And naturally, with that lovely, expensive appliance in the room, Americans are spending more time in front of the box, averaging five hours a day. So, despite your new refrigerator using ( 10 ) percent less energy than it did in 1991, your favorite soap stars are stealing all your savings away!

- |                |               |                    |                     |
|----------------|---------------|--------------------|---------------------|
| 1. a. smaller  | b. larger     | c. technological   | d. environmental    |
| 2. a. far from | b. close to   | c. just under      | d. exactly          |
| 3. a. 3.7      | b. 50         | c. 800             | d. 4500             |
| 4. a. climbed  | b. fluctuated | c. negated         | d. sunk             |
| 5. a. 0        | b. 24         | c. 50              | d. 58               |
| 6. a. TVs      | b. dryers     | c. refrigerators   | d. air conditioners |
| 7. a. excited  | b. worrying   | c. exciting        | d. encouraging      |
| 8. a. half     | b. 275 watts  | c. the living room | d. 2005             |
| 9. a. just     | b. 275 watts  | c. four times      | d. 20"              |
| 10. a. five    | b. nine       | c. forty           | d. seventy          |



IV. Read the following conversation and answer the questions below.

Pete: Fancy grabbing a donut and a coffee?

Elise: Sorry, I'm on sort of a new diet. I have to watch my weight.

Pete: You're kidding? You come to the healthiest country in the world and go on a diet?

Elise: Living in Tokyo is not that healthy, you know. I've put on so much weight since I came to Japan.

Pete: But I thought, you know, sushi and green tea, that sort of thing, were good for you.

Elise: **(i)** I thought so, as well. But you don't just eat those every day. There's *tempura*, *sukiyaki*, ehm, *tonkatsu*, and all those convenience store snacks.

Pete: But you can choose to cook more at home if you want.

Elise: That would be great, but I don't even know what half of the things in the supermarket are, so how can I prepare them?

Pete: I know what you mean. When I think about it, I eat out more than I should, I guess. But I do like my life that way.

Elise: And I, like, only sit in front of a computer all day, designing dull websites. I wish I were more active.

Pete: Is that at the Nakano office?

Elise: Yeah, **(ii)** our Nishi Nakano office.

Pete: Oh, right. There are loads of gyms in that part of the city. You could **(A)** \_\_\_\_\_ to one on your way home from work.

Elise: Have you seen how much they are to join? **(B)** I thought renting an apartment was expensive!

Pete: How about jogging to stay healthy? You don't need a membership to a club for that.

Elise: **(C)** It crossed my mind.

Pete: I could join you. I have a mini MP3 player I haven't tried using yet.

Elise: You never jog! That's why you don't know how bad the air in Tokyo is. It's probably worse for you than sitting inside.

Pete: **(iii)** But you have to do something, if you want to lose weight.

Elise: I can't be bothered with exercise, really. I'll just stick to my dieting idea.

Pete: Well, OK. Gotta go, the double chocolate caramel ones always go first. **(D)** \_\_\_\_\_

Elise: OK. Enjoy your donut. Bye.

IV. 1. Which parts of the sentences (i)-(iii) are most stressed in conversation?

- (i) a. I            b. thought        c. so            d. as  
(ii) a. our          b. Nishi          c. Nakano        d. office  
(iii) a. to          b. do            c. some          d. thing

IV.2.

(1) Which is true for Elise?

- a. She doesn't know how to prepare lots of things from the supermarket.  
b. She doesn't care about cooking things that she buys from the supermarket.  
c. She wants Pete to tell her how to prepare things from the supermarket.  
d. She can prepare about half of the things from the supermarket.

## IV.2.

- (2) Which is true for Elise?
- a. She doesn't like it when she is not busy.
  - b. She doesn't like her job.
  - c. She likes sitting in front of her computer.
  - d. She does things like jogging.
- (3) Choose an appropriate word or phrase for (A).
- a. drop in
  - b. stop by
  - c. attend
  - d. visit
- (4) What does Elise imply in (B)?
- a. In her opinion, renting an apartment is expensive.
  - b. She considered renting an expensive apartment.
  - c. Gyms are less expensive than she imagined.
  - d. She was even more surprised by the high price of gyms.
- (5) What does Elise mean when she says (C)?
- a. She considered jogging.
  - b. She contemplated membership of a club.
  - c. She didn't like Pete's idea.
  - d. She was confused.
- (6) Choose the most appropriate expression for (D).
- a. I'll get one for you, too.
  - b. I greatly look forward to seeing you again.
  - c. I'll call you soon.
  - d. A diet is extremely important.
- (7) Which sentence is NOT TRUE about the conversation?
- a. Elise gets some ideas about losing weight from Pete.
  - b. Pete is not really interested in staying healthy.
  - c. Pete and Elise disagree about how healthy living in Tokyo is.
  - d. Elise is interested in losing weight by exercising and dieting.