

## 英 語

- 1 (A) 次の英文の趣旨を、70～80字の日本語でまとめよ。句読点も字数に含める。

When I was six or seven years old, I used to take a small coin of my own, usually a penny, and hide it for someone else to find. For some reason I always “hid” the penny along the same stretch of sidewalk. I would place it at the roots of a huge tree, say, or in a hole in the sidewalk. Then I would take a piece of chalk, and, starting at either end of the block, draw huge arrows leading up to the penny from both directions. After I learned to write I labeled the arrows: SURPRISE AHEAD or MONEY THIS WAY. I was greatly excited, during all this arrow-drawing, at the thought of the first lucky passer-by who would receive in this way, regardless of merit, a free gift from the universe.

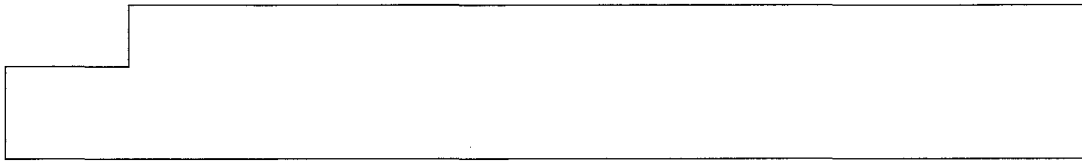
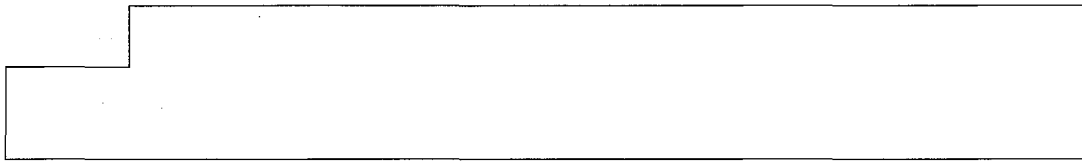
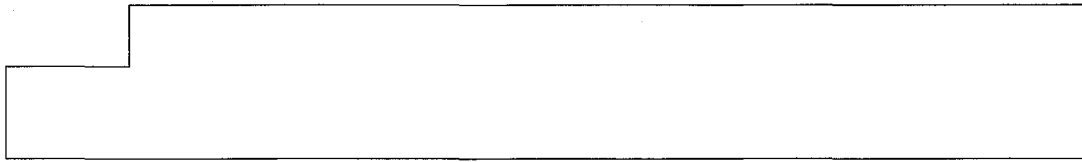
Now, as an adult, I recall these memories because I’ve been thinking recently about seeing. There are lots of things to see, there are many free surprises: the world is full of pennies thrown here and there by a generous hand. But — and this is the point — what grown-up gets excited over a mere penny? If you follow one arrow, if you crouch motionless at a roadside to watch a moving branch and are rewarded by the sight of a deer shyly looking out, will you count that sight something cheap, and continue on your way? It is dreadful poverty indeed to be too tired or busy to stop and pick up a penny. But if you cultivate a healthy poverty and simplicity of mind, so that finding a penny will have real meaning for you, then, since the world is in fact planted with pennies, you have with your poverty bought a lifetime of discoveries.

(B) 次の英文を読み、以下の問いに答えよ。

Collecting has long been a popular hobby, be it for the usual stamps, coins, and buttons, or more recently for Pokemon trading cards. But some kinds of collecting require more than an amateur's knowledge; in this category we find fountain pens. Widely replaced by more affordable and convenient ballpoint and rollerball pens, today fountain pens as everyday writing tools are rarely seen. Precisely for this reason, they have caught the eye of collectors.

For collectors, an item's value is increased not only by how rare it is but also by how many colorful stories are told about it, and the long history of the fountain pen contains many.  The fascinating origins of the pen, for example, are inseparable from the development of writing itself.  We all know about China's crucial invention of paper around 104 A.D. for brush-writing with "India ink."  But consider the Egyptians' earlier use of hollow reed pens to write on papyrus some 4,000 years ago.  What is this if not the basic principle of the modern fountain pen, the ideal pen whose "fountain" would not run dry?

From the Middle Ages, writers in Europe and elsewhere used a goose quill, or other bird's feather, that held berry juice or ink. Although feather quills appear romantic when we see them in movies, and we might well imagine Shakespeare composing his masterpieces with them, in reality, the quill pen was often unattractive and messy. It had to be constantly dipped in ink and sharpened with a knife. It quickly became worn down just by writing and handling.



But now that this Golden Age is giving way to a new era of writing technologies, from rollerball pens to computers, it rests with the ordinary collector, like me, to keep the fountain pen and its stories alive. Indeed, I confess to having recently purchased my first collectable pen. <sup>(a)</sup> The De La Rue Company of Great Britain was founded as a paper and printing company in 1821. Even today, it is De La Rue's high-security paper on which Bank of England money is printed. <sup>(c)</sup> But for some time in the early 20th century it also used to manufacture pens, such as the one I now own; in fact, it created quite a name for itself with them. <sup>(d)</sup> Before I can explain why I wanted this particular De La Rue pen, I must first tell you the story of the writer who led me to it. <sup>(e)</sup>

A 19th-century novelist, Onoto Watanna, once wrote enormously popular stories in English about the West and Japan. She wanted to tell her English readers about Japan's language, culture, and customs. While she never revealed her actual name, she once acknowledged "Onoto Watanna" was just a pen name. Quite literally, it turns out, for "Onoto" was also the name of the De La Rue Company's fountain pen!

The actual identity of Onoto Watanna, I already knew: Winnifred Eaton was half-Chinese, half-English, and raised in Canada and the US. She spoke no Japanese and had never been to Japan. The pen caught my attention

later, by chance, when I saw a 1920s Japanese advertisement for “Onoto, the Pen.” Immediately, I assumed the pen was Japanese-made, and the clever origin of Onoto’s pen name. But the Onoto pen was born in Britain in 1905 *after* “Onoto Watanna”; that is, just as had Winnifred Eaton before them, the De La Rue Company too followed the global fashion for things Japanese, even borrowing Eaton’s fake Japanese name. Sparking my search for the truth about pen and writer, this misunderstanding led to a new passion for collecting unusual fountain pens with unexpected stories.

注：reed 葦

- (1) 以下の文は、第二段落のア～オのどの位置に補うのが最も適切か。その記号を記せ。

Historians suggest that even these very early writing instruments can be seen as having a sort of internal tank which could supply ink steadily to the writing tip.

- (2) 上の文章で空白になっている第四段落から第七段落には、次のア～オのうちの四つの段落が入る。それらを最も適切な順に並べた場合に、不要となる段落、一番目に来る段落、三番目に来る段落はどれか。その記号を記せ。

ア In his case, truly, “necessity *was* the mother of invention.” Determined to avoid the same thing happening again, he got to work. His new feeder system caused the ink to move safely down from storage inside the pen body to the specially designed pen tip, or “nib.”

イ During the 19th century, scientific advances made many inventions possible. One of these was Charles Goodyear’s discovery of the chemical process by which soft rubber was made harder, making it ideal for shaping a stronger body for the fountain pen or making boots and coats waterproof.

ウ Once technology and design made the fountain pen more reliable, attention could turn to beauty and not just usefulness. Pen companies the world over competed for quality and status, creating pens specifically marketed to powerful world leaders, famous people, soldiers in the field, and everyday consumers.

エ Ironically, it was an accident that solved all these problems and led to the technological improvement of the fountain pen. In 1883, the businessman Lewis Waterman needed a contract signed. He gave his fountain pen to a customer to do just that but, without warning, the pen flooded ink all over their documents! Waterman lost his business deal, and then his temper.

オ Throughout its long development, the pen had always faced similar problems: how to hold the ink inside and then get it to flow steadily to the paper, without requiring constant cutting or dipping in the ink bottle, and without either going dry or leaking. Many of us have had the unpleasant experience of the bad pen that suddenly leaks ink all over our hands. Such occurrences were common in the early days of the pen.

(3) 第八段落の文(a)~(e)のうち, 取り除いてもその段落の展開に最も影響の小さいものを選び, その記号を記せ。

(4) 上の文章全体との関係において, 最後の三段落の趣旨として最も適切なものを選び, その記号を記せ。

ア Uncovering the true identity of Onoto Watanna

イ Explaining why I began to collect fountain pens

ウ Giving the most recent history of the fountain pen

エ Introducing a product made by the De La Rue Company

オ Revealing why the De La Rue Company named its pen “Onoto”

- 2 (A) 次のような質問を受けたと仮定し、空所(1)、(2)をそれぞれ 20～30 語の英語で埋める形で答えを完成させよ。(1)、(2)のそれぞれが複数の文になってもかまわない。

**Question:** Do you think reading books will help you acquire the knowledge you need to live in today's world?

**Answer:** My answer is both yes and no.

Yes, because (1) \_\_\_\_\_  
\_\_\_\_\_

No, because (2) \_\_\_\_\_  
\_\_\_\_\_

(B) 以下の例に従って、次の(1)~(5)について、(a)と(b)の文が同じ意味になるよう、括弧内の単語をそのままの形で用いて、空所を2~5語の英語で埋めよ。

(例) (a) “Can I go to the party?” Susan asked. (**she**)

(b) Susan asked if she could go to the party.

(1) (a) It’s extremely rare for her to miss class. (**almost**)

(b) She \_\_\_\_\_ class.

(2) (a) His eyesight is so poor that he can hardly read. (**such**)

(b) He \_\_\_\_\_ he can hardly read.

(3) (a) Because the weather was bad, the trains were late. (**to**)

(b) The trains were late \_\_\_\_\_ weather.

(4) (a) That’s the nicest compliment anyone has ever paid me. (**a**)

(b) No one has ever \_\_\_\_\_ nice compliment.

(5) (a) We can’t afford that car. (**us**)

(b) That car is \_\_\_\_\_ buy.

3 放送を聞いて問題(A), (B), (C)に答えよ。

注 意

- ・聞き取り問題は試験開始後 45 分経過した頃から約 30 分間放送される。
- ・放送を聞きながらメモを取ってもよい。
- ・放送が終わったあとも、この問題の解答を続けてかまわない。

聞き取り問題は大きく三つのパートに分かれている。Part A, Part B, Part C はそれぞれ独立した問題である。Part A と Part B は放送を聞いてその内容について答える問題, Part C は音声を聞いて書き取る問題(ディクテーション)である。それぞれのパートごとに設問に答えよ。Part A, Part B, Part C のいずれも 2 回ずつ放送される。

(A) これから放送する講義を聞き, (1)~(6)の問いに対して, 各文が放送の内容と一致するように, それぞれ正しいものを一つ選び, その記号を記せ。

(1) According to the speaker, the majority of people

- ア believe to some extent in ghosts.
- イ doubt the existence of ghosts and UFOs.
- ウ think everything can be explained by science.
- エ are attracted by things which cannot be explained by science.

(2) The speaker divides people who have strong opinions about the paranormal into two groups. According to the speaker, the first group consists of people who

- ア are anti-scientific.
- イ are trying to hide the truth.
- ウ want scientific explanations.
- エ doubt reports of unexplained happenings.



(3) In the speaker's opinion, the second group of people who have strong opinions about the paranormal are

ア inflexible.

イ knowledgeable.

ウ reasonable.

エ superstitious.

(4) The speaker tells us that when Edison invented the electric lamp, there were some researchers who

ア believed he had made an electric lamp and so went to see it.

イ did not believe he had made an electric lamp and so did not go to see it.

ウ did not believe he had made an electric lamp until after they had seen it.

エ believed he had made an electric lamp but did not bother to go and see it.

(5) According to the speaker, when the Wright brothers made their first flights

ア nobody believed they had done it.

イ people didn't believe journalists' reports that they had done it.

ウ ordinary local people believed they had done it, but journalists did not.

エ local journalists believed they had done it, but national journalists did not.

(6) What interests the speaker most about people who believe in the paranormal is

ア how they argue for it.

イ why they believe in it.

ウ their attitude to scientific evidence.

エ their claim that the paranormal exists.

(B) これから放送するのは、味覚に関する、スーザン、ジョン、デイヴ、3人の学生の会話である。これを聞き、(1)~(5)の問いに対して、各文が放送の内容と一致するように、それぞれ正しいものを一つ選び、その記号を記せ。

(1) Susan at first mistakenly believes that

- ア the human tongue can detect only four basic tastes.
- イ we generally like the tastes of things which are good for us.
- ウ human beings are able to distinguish thousands of different tastes.
- エ complex tastes are made up of different proportions of basic tastes.

(2) John claims that we dislike bitter things because they are bad for us.

Dave shows his disagreement by

- ア arguing that coffee is poisonous.
- イ giving him some strong dark chocolate.
- ウ explaining that bitter things give us energy.
- エ pointing out that some people love bitter tastes.

(3) According to John,

- ア more than 2,000 researchers have accepted *umami* as a basic taste.
- イ the *umami* taste is identified by the same set of detectors as sweetness.
- ウ *umami* has only recently been accepted by scientists outside Japan as a basic taste.
- エ foods with the *umami* taste were not eaten in Japan until about a hundred years ago.

(4) What Dave finds “very amusing” is

- ア the idea that poisonous mushrooms have a basic taste.
- イ the thought of Susan investigating poisonous mushrooms.
- ウ Susan’s suggestion that he eat some poisonous mushrooms.
- エ his own comment about the evolution of poisonous mushrooms.

(5) At the end of the conversation, Dave learns that

ア some people like to eat curry every day.

イ the hotness of curry is not a basic taste.

ウ we enjoy the taste of curry because it's good for us.

エ some curries are so hot that they are almost painful to eat.

(C) 以下の文章が放送と一致するように空所( 1 )～( 4 )を埋めよ。

The world presently uses about 86 million barrels of oil a day. Some of this oil is burned to provide heat or to power cars and trucks, ( 1 ) to produce plastics and fertilizers for agriculture. Unfortunately, according to a theory called Peak Oil, the world's oil production has now reached its maximum. The theory admits that there is still a lot of oil in the ground and under the sea, but it argues that almost all the oil which is easy to extract and process ( 2 ). For example, an important new find in the Gulf of Mexico, announced in 2006, lies more than eight kilometres below the sea. What's more, it would provide enough for only two years of US consumption, at present levels. No one knows how steep ( 3 ) will be, or exactly when it will begin. But it seems clear that the coming shortage of oil will affect ( 4 ): food, transport and heating are all daily necessities.

- 4 (A) 次の英文(1)~(5)には、文法上あるいは文脈上、取り除かなければならない語が一語ずつある。解答用紙の所定欄に該当する語を記せ。

If you were asked to fall backward into the arms of a stranger, would  
(1) you have trust the other person to catch you? Such an exercise, which is  
(2) sometimes used in psychology, is a bit extreme, but every day most people  
put on some degree of trust in individuals they do not know. Unlike other  
(3) animals, we humans tend to spend a great deal of time around all others who  
are unknown to us. Those who live in cities, for example, regularly find their  
(4) way through a sea of strangers, deciding to avoid certain familiar individuals  
they feel are not safe. They are equally good at identifying others who will,  
(5) say, give accurate directions to some destination or other who will, at the  
very least, not actually attack them.

(B) 次の英文の下線部(1), (2), (3)を和訳せよ。

How she loved her mother! Still perfectly beautiful at eighty-six. The<sup>(1)</sup>  
only concession she'd made to her age was a pair of hearing aids. "My  
ears," she called them. Everything her mother touched she touched  
carefully, and left a little smoother, a little finer for her touch. Everything  
about her mother reminded her of trees changing with the seasons, each  
garment some variety of leaf color: the light green of spring with a hint of  
yellow, the dark green of full summer, occasionally a detail of bright  
autumn — an orange scarf, a red ribbon in her hair. Wool in winter, cotton  
in summer; never an artificial fiber next to her skin. What she didn't  
understand, she often said, was the kind of laziness which, in the name of<sup>(2)</sup>  
convenience, in the end made more work and deprived one of the small but  
real joys. The smell of a warm iron against damp cloth, the comfort of  
something that was once alive against your body. She was a great believer  
in not removing yourself from the kind of labor she considered natural. She  
wouldn't own an electric food processor or have a credit card. She liked, she  
said, chopping vegetables, and when she paid for something, she wanted to<sup>(3)</sup>  
feel, on the tips of her fingers, on the palms of her hands, the cost.

5 次の文章を読み、以下の問いに答えよ。

When people hear that I'm writing an article about the way human beings deceive each other, they're quick to tell me how to catch a liar. Liars always look to the left, several friends say; liars always cover their mouths, says a man sitting next to me on a plane. Beliefs about ( 1 ) are numerous and often contradictory. Liars can be detected because they move a lot, keep very still, cross their legs, cross their arms, look up, look down, make eye contact or fail to make eye contact. Freud thought anyone could spot people who are lying by paying close enough attention to the way they move their fingers. Nietzsche wrote that "the mouth may lie, but the face it makes nonetheless tells the truth."

Most people think they're good at spotting liars, but studies show otherwise. It is wrong to expect that professionally trained people will have the ability to detect liars with accuracy. In general, even professional lie-catchers, like judges and customs officials, perform, when tested, ( 2 ). In other words, even the experts would have been right almost as often if they had just tossed a coin.

Just as it is hard to decide who is lying and who is not, it is also much more difficult ( 3 ) tell what is a lie and what is not. "Everybody lies," Mark Twain wrote, "every day; every hour; awake; asleep; in his dreams; in his joy; in his grief."

First, there are the lies which consist of *not* saying something. You go out to dinner with your sister and her handsome boyfriend, and you find him utterly unpleasant. When you and your sister discuss the evening later, isn't it a lie for you to talk about the restaurant and not about the boyfriend? What if you talk about his good looks and not about his offensive personality?

Then there are lies which consist of saying something you know to be false. Many of these are harmless lies that allow us to get along with one another. When you receive a gift you can't use, or are invited to lunch with a co-worker you dislike, you're likely to say, "Thank you, it's perfect" or "I wish I could, but I

have a dentist's appointment," rather than speak the harsher truth.<sup>(4)</sup> These are the lies we teach our children to tell; we call them manners. Even our automatic response of "Fine" to a neighbor's equally mechanical "How are you?" is often, when you get right down to it, a lie.

More serious lies can have a range of motives and implications; for example, lying about a rival's behavior in order to get him fired. But in other cases, not every lie is one that needs to be uncovered. We humans are active, creative animals who can represent what exists as if it did not, and what doesn't exist as if it did.<sup>(5)</sup> Concealment, indirectness, silence, outright lying — all contribute to the peace-keeping of the human community.

Learning to lie is an important part of growing up. What makes children able to start telling lies, usually at about age three or four, is that they have begun developing a theory of mind, the idea that what goes on in their heads is different from what goes on in other people's heads. With their first lie to their parents, the power balance shifts a little: they now know something their parents don't know. With each new lie they gain a bit more power over the people who believe them.<sup>(6)</sup> After a while, the ability to lie becomes just another part of their emotional landscape.

Lying is just so ordinary, so much a part of our everyday lives and everyday conversations, that we hardly notice it. The fact is that in many cases it would be more difficult, challenging and stressful for people to tell the truth than to lie. Can't we say that deceiving is, ( 7 ), one characteristic associated with the evolution of higher intelligence?

At present, attempts are being made by the US Federal Government to develop an efficient machine for "credibility assessment," ( 8 ), a perfect lie detector, as a means to improve the nation's security level in its "war on terrorism." This quest to make the country safer, however, may have implications for our everyday lives in the most unexpected ways. How will the newly developed device be able to tell which are truly dangerous lies and which



are lies that are harmless and kind-hearted, or <sup>(9)</sup>self-serving without being dangerous? What happens if one day we find ourselves with instruments that can detect untruth not only in the struggle against terrorism but also in situations that have little to do with national security: job interviews, tax inspections, classrooms, bedrooms?

A perfect lie-detection device would turn our lives upside down. Before long, we would stop speaking to each other, television would be abolished, politicians would be arrested and civilization would come to a halt. It would be a mistake to bring such a device too rapidly to market, before considering what might happen not only if it didn't work — <sup>(10)</sup>which is the kind of risk we're accustomed to thinking about — but also what might happen if it did. Worse than living in a world filled with uncertainty, in which we can never know for sure who is lying to whom, might be to live in a world filled with certainty about where the lies are, thus forcing us to tell one another nothing but the truth.

(1) 空所( 1 )を埋めるのに最も適切な表現を次のうちから一つ選び、その記号を記せ。

- ア why people lie
- イ the timing of lying
- ウ what lying looks like
- エ the kinds of lies people tell

(2) 空所( 2 )を埋めるのに最も適切な表現を次のうちから一つ選び、その記号を記せ。

- ア as accurately as expected
- イ not much better than chance
- ウ somewhat worse than average
- エ far better than non-professionals

(3) 下に与えられた語を正しい順に並べ替え、空所( 3 )を埋めるのに最も適切な表現を完成させよ。ただし、下の語群には、不要な語が一つ含まれている。

look      tend      than      think      to      to      we

(4) 下線部(4)の意味内容として最も近いものを次のうちから一つ選び、その記号を記せ。

- ア how you really feel
- イ the lies children tell
- ウ a visit to the dentist
- エ why you don't like lunch

(5) 下線部(5)を和訳せよ。

(6) 下線部(6)の意味内容として最も近いものを次のうちから一つ選び、その記号を記せ。

- ア They become less dependent on others.
- イ They learn more clearly to tell right from wrong.
- ウ They realize that their parents are just like other people.
- エ They understand that they are being encouraged to learn how to lie.

(7) 空所( 7 )を埋めるのに最も適切な表現を次のうちから一つ選び、その記号を記せ。

- ア in vain
- イ after all
- ウ in no way
- エ by contrast

(8) 空所( 8 )を埋めるのに最も適切な表現を次のうちから一つ選び、その記号を記せ。

- ア all the same
- イ by all means
- ウ in other words
- エ on the other hand

(9) 下線部(9)で説明されている lies はこの文脈では何を意味するか。次のうちから最も適切なものを一つ選び、その記号を記せ。

- ア 自分にとっては安全で使いやすい嘘
- イ 自動的に出てくる、たわいのない嘘
- ウ 自己犠牲を必要とする割に無難な嘘
- エ 利己的だが、国家にとって安全な嘘

(10) 下線部(10)で説明されている risk とは、この場合どのようなものか。15～20字の日本語で具体的に説明せよ。

(11) 以下は筆者の見解をまとめたものである。空所( a )～( d )を埋めるのに最も適切な語を下の語群から選び、必要に応じて適切な形にして記せ。同じ語は一度しか使えない。

As human beings, we cannot ( a ) lying at times. Indeed, sometimes lying ( b ) people from unnecessary confrontation. In many cases, peace in human society is ( c ) because not all the truth is ( d ).

avoid    invite    maintain    protect    reveal    struggle

## Part A

Do ghosts exist? Do the dead come back to visit the people who have survived them? For many centuries it was believed that they did. More modern questions are: do UFOs exist, and do creatures from outer space visit earth and contact human beings? Most people would answer no to all these questions, but the idea that there are mysteries which cannot be explained by science always remains attractive to some people. Such unexplained phenomena are usually referred to as “the paranormal”, a word which means “beyond or beside the normal”.

People who have strong opinions about the paranormal generally approach it in one of two opposite ways. On the one hand, there are those who automatically believe that all reports of ghosts, UFOs, or other unexplained happenings are true. Such people are not interested in how – or even whether – these things can be explained by science since what they doubt is science itself. Scientists, they think, are trying to hide the truth about the strangeness of the universe.

On the other hand, there are those who just as automatically assume that all reports of paranormal phenomena *must* be invalid. Such people see themselves as defenders of reason and objectivity, insisting that society must at all costs be protected from the dangers of superstition and popular ignorance.

There is, of course, a third possible attitude to the paranormal, the flexible approach of those who are willing, when faced by something puzzling, to look at it from all angles, realising that what is under investigation may not fit in with current ways of thinking. They do not automatically accept or reject claims, but rather try to test them using existing scientific methods.

This third response is clearly the most scientific, but in fact scientists and other supposedly objective investigators have not always taken this approach to things which they do not yet understand. For example, some researchers declared that Edison's electric lamp was an impossibility, and because they thought it was impossible, they refused to go and see it even when Edison used it to light up his laboratory.

Similarly, from 1904, the Wright brothers made flights over fields close to a main highway and a railway line in Ohio; but even though hundreds of people saw them in the air, local journalists failed to report it. As the publisher of one local newspaper later admitted, none of them believed it was possible and so they did not go to see it with their own eyes. Two years after the Wright brothers' first flight, the important national journal *Scientific American* still refused to believe it had happened; if there had been any truth in the story, the journal said, wouldn't the local newspapers have reported it?

Although the editors of *Scientific American* began by rejecting the Wright brothers' claims, they were flexible enough to change their minds when finally presented with the evidence. In contrast, a striking fact about those who strongly believe in the reality of the paranormal is the certainty of their belief despite an almost perfect absence of scientific proof. The most interesting question, then, is perhaps not whether the paranormal exists, but what makes some people so eager to believe that it does.

## Part B

Susan: John, I hear you've been doing some research on taste?

John: That's right. You know, we can distinguish thousands of different tastes, and yet there are only a few *basic* tastes we can detect.

Susan: Four, isn't it? The human tongue can detect sweet, salty, bitter, and sour tastes, right?

John: That's what people used to think, Susan. And different tastes were supposed to be made up of those four basic components in different proportions. Of course, they were partly right: complex flavours *are* made up of simpler tastes.

Susan: That's what I've always thought. And we like certain tastes because they're good for us. For instance, we like the salty taste, because salt is good for us.

Dave: I thought salt was bad - for blood pressure or something.

John: Too much salt, yes. But the body needs salt, Dave - like we need sweet things to give us energy. On the other hand, we dislike bitter tastes because lots of poisons are bitter.

Dave: Well, anyone for a nice cup of poison - I mean - coffee? Or how about some strong dark chocolate? People can't get enough of those things, John, and they're bitter.

John: It's true... children don't like bitter tastes at all, but for some reason, grown-ups often do. I'm afraid there are still a few mysteries to clear up...

Susan: John, you said people *used* to think there were four...

John: Right. Since about 2000, most researchers have come to accept a fifth taste. We've discovered that the tongue has another set of detectors, which are associated (like sweetness) with pleasure, for a chemical called glutamate.

Dave: So this - what did you call it? - glutamate must be good for us, is that the idea?

John: That's right, Dave. It's present in things like meat and other proteins, which the body uses to build muscles and so on.

Dave: Ah, that rings a bell. There's a Japanese word for this fifth taste, isn't there? What was it...?

John: It's called *umami* - usually translated as 'savory' in English. *Umami* was actually discovered in Japan about a hundred years ago, but it's only been accepted in other countries recently. It's the taste you find in meat, cheese and green tea... Also mushrooms.

Dave: Mushrooms?

Susan: Don't you like mushrooms, Dave?

Dave: Well, yes, as a matter of fact, I do. But I find it hard to believe that evolution has given me a special mushroom-detector to encourage me to eat them. Lots of mushrooms are poisonous, aren't they?

Susan: Oh yes. Hey, I have an idea. Perhaps you could go and investigate some of them...

Dave: Very amusing... But aren't there more basic tastes than we've mentioned so far? What about curry, for example? Isn't the hot or spicy taste of curry a basic taste?

John: I have news for you, Dave. In fact, there is no hot or spicy taste. According to most experts, hotness is not a taste but a sensation. It's a physical feeling, like pain, not a taste.

Dave: Oh well, you learn something new every day.

## Part C

The world presently uses about 86 million barrels of oil a day. Some of this oil is burned to provide heat or to power cars and trucks, but some is also used to produce plastics and fertilizers for agriculture. Unfortunately, according to a theory called Peak Oil, the world's oil production has now reached its maximum. The theory admits that there is still a lot of oil in the ground and under the sea, but it argues that almost all the oil which is easy to extract and process has now been found. For example, an important new find in the Gulf of Mexico, announced in 2006, lies more than 8 kilometres below the sea. What's more, it would provide enough for only two years of US consumption, at present levels. No one knows how steep the fall in oil production will be, or exactly when it will begin. But it seems clear that the coming shortage of oil will affect every aspect of our way of life: food, transport and heating are all daily necessities.