

Reading

Read the passage and choose the best answer to the questions that follow.

Upgrading your brain

In the last 20 years, the technologies of brain scanning have made it possible to study living brains. [1] Neuroscientists now understand much more about the functions of the human brain: which parts are used and in what combinations for different activities; for example in speech, recognizing faces, listening to music, or doing mathematics.

This new understanding has led to extraordinary advances in the field of information technology. The next generation of computers may not be based on digital codes and silicon but on organic processes: computers that mimic human thought.

At the moment, even the most powerful supercomputers are just mindless calculators. They perform complicated tasks that we humans cannot but they don't have any opinions about what they do. In the human sense of the term, they don't think. Similarly, airplanes are much better than we are at flying at 35,000 feet, but there's no point asking them how they feel about it. They don't feel anything. [2]

In the [A] future, the most powerful computers may have the processing power of the brain of a six-month-old human baby. In other words, they will be capable of learning. What does this mean? They might, for example, be capable of updating their own operating systems based on their experiences. How is it going to feel when you are working with a computer that's as smart as you are? You give the machine an instruction and it hesitates, and says, "Have you thought this through? I'm not sure that you have." By the middle of the century, personal computers could have the processing power of not one but of a thousand human brains.

Perhaps most significantly, the interaction of neuroscience and information technology may make it possible to enhance our own capabilities by physically merging computers with our brains. [3] Computers, in the form of neural implants, are already being placed into people's brains to make the symptoms of certain diseases less severe. Over the coming decades, these implants could improve our powers of memory and reasoning and add to our skill set. So, in the future, if you have an important examination coming up you might be able to buy another 60 megabytes of memory and have it implanted into your brain. Or instead of spending five years learning Spanish, you could have it implanted in time for your summer holiday. Always dreamt of playing the guitar but never got round to it? Implant your favorite band's back-catalogue and make that dream a reality. [4]

All this may sound far-fetched, but if someone had said fifteen years ago that you could sit on a beach with a small wireless telephone and search the entire contents of the Encyclopedia Britannica, send instant mail, download music and videos, book a hotel room, arrange a loan and check your blood pressure, you would have thought they were being ridiculous. Now we take these things for granted. If you could go back in time and hand your smart phone to your great-grandparents, they'd think you were a character from a sci-fi movie. [B] Wait until tomorrow.

1. Choose the best location in the article for the following sentence: This is all changing.
 - A. [1]
 - B. [2]
 - C. [3]
 - D. [4]

2. Choose the best word to replace the underlined mimic in the second paragraph.
 - A. replace
 - B. improve
 - C. surpass
 - D. imitate

3. According to the article, what limitations do computers currently have?
 - A. They are unable to recognize different human faces.
 - B. They can only perform tasks that babies are capable of.
 - C. They do not have a mind of their own.
 - D. Their operating systems are difficult to update.

4. Which word best fits into the space marked [A]?
 - A. foreseeable
 - B. desirable
 - C. reliable
 - D. noticeable

5. Which of the following is NOT specifically mentioned as something that neural implants may help people with in the future?
 - A. Academic success
 - B. Language acquisition
 - C. Musical performance
 - D. Time management

6. What does the following underlined sentence in the sixth paragraph mean?
Now we take these things for granted.
 - A. We are unable to live without them.
 - B. They do not surprise us.
 - C. We are becoming tired of them.
 - D. They are still new.

7. Which sentence best fits into the space marked [**B**]?
- A. What was impossible yesterday is routine today.
 - B. What was routine yesterday is rare today.
 - C. What was impossible yesterday is rare today.
 - D. What was rare yesterday is impossible today.
8. Choose the sentence that best summarizes this article.
- A. In the future, the next generation of computers will replace humans in carrying out many tasks.
 - B. In recent years, technological capabilities have progressed at a faster pace than ever before.
 - C. The fields of neuroscience and information technology are combining in new and exciting ways.
 - D. Our understanding of the human mind is limited and this is slowing down technological progress.