

Name:

**Part 6**

Read an article on psychological stress.

Answer questions 27 to 33 based on the article.

### Psychological Stress

1 Stress is your body's response to change. It is a very individual thing. A situation that one person finds stressful may not bother someone else. For example, one person may become tense when driving; another person may find driving as a source of relaxation and joy. Something that causes fear in some people, such as rock climbing, may be fun for others. There is no way to say that one thing is 'bad' or 'stressful' because everyone is different. Not all stress is bad, either. Speaking to a group or watching a close football game can be stressful, but they can be fun, too. Life would be dull without some stress. We all have stress sometimes. For some people, it happens before having to speak in public, for other people, it might be before their first date.

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2 Sometimes stress is helpful—it can encourage you to meet a deadline or get things done. The key is to manage stress properly because unhealthy responses to it may lead to health problems in some people. People can get migraine and gastritis because of stress. But long-term stress can increase the risk of diseases like depression, heart disease and a variety of other problems. Another long-term stress-related illness called post-traumatic stress disorder (PTSD) develops after an event like war, physical or sexual assault, or natural disaster.

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3 If you have chronic stress, you will need to go for counselling. Counselling can help you find ways to relax and calm down. Medicines, rest, and a good diet may also help. However, the best way to deal with it is to take care of the underlying problem. Outside events (like problems with your boss, preparing to move or worrying about a child's wedding) can be upsetting. But remember that it is not the outside events in your life but how you react to it inside, that is important. You cannot control all the outside events in your life but you can change how you handle them emotionally and psychologically. There are some things that you can change and there are some that you cannot, the sooner you realise this the better. You do not have to solve all of life's problems. Talk out your troubles and look for the good instead of the bad in situations.

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4 Most people try to find solutions to overcome stress. For instance, someone feeling pressured by a difficult situation might start smoking or overeating. Finding more satisfactory ways to respond to pressure will help protect your health. The time is now.

(Adapted from [www.nlm.nih.gov/medlineplus/stress.html](http://www.nlm.nih.gov/medlineplus/stress.html))

- 27 In the opening paragraph, the writer
- A justifies the need for stress
  - B offers reasons that cause stress
  - C suggests ways to cope with stress
  - D explains how different people view stress

Answer:

- 28 It is important to manage stress because stress
- A is inherited
  - B is harmful to the body
  - C may lead to health problems
  - D is the response to external events

Answer:

29 Which of the following is not a long-term stress-related ailment?

- A Gastritis
- B Depression
- C Heart disease
- D Post-traumatic stress disorder

Answer:

30 The best way to deal with chronic stress is

- A eat well
- B have enough rest
- C go for counselling
- D to deal with the root problem

Answer:

31 The word *this* (line 24) refers to recognising that

- A everything that can change will change
- B all things can be changed if we want change

C the things we want to change will be changed

D some things can be changed while others cannot be changed

Answer:

32 The phrase *look for the good instead of the bad in situations* is to be in one's \_\_\_\_\_ outlook of life.

- A neutral
- B positive
- C negative
- D pragmatic

Answer:

33 The article follows a \_\_\_\_\_ order.

- A linear
- B cause-effect
- C problem-solution
- D compassion-contrast

Answer:

## Part 7

Read an article entitled 'Mind Reading'.

Answer questions 34 to 40 based on the article.

### Mind Reading

1 You may believe your thoughts are intangible and inscrutable, but all mental activity is communicated via electrical impulses. As our understanding of the brain improves, we're increasingly able to decode our mental electrical signals, and translate our thoughts into automatic action. The foremost records of electrical impulses in the human brain were discovered in 1924 by a German doctor, Hans Berger, using his new invention—the electroencephalogram (EEG). This uses electrodes placed on the skull to read the output of the brain's billions of nerve cells or neurons. By the mid-1990s, the ability to translate the brain's activity into readable signals broke new ground, that people could move computer cursors using only the electrical fields manned by their thoughts.

2 The translation of thoughts to language, working in the brain, is an incredibly complex and mysterious process. What is known is that before they end up in the motor cortex, these thoughts become spoken words through two 'staging areas' associated with the perception and expression of speech. The first is called Wernicke's area which deals with semantics—here, ideas based on meaning include images, smells, or emotional memories. Damage to this area can result in the loss of semantic associations. Words will not make sense when they are decoupled from their meaning. For example, a stroke in that region will result in the patient having trouble understanding not just what others are saying but what he or she herself is thinking.

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3 The second is Broca's area which is known to be the brain's speech-processing centre. Here the semantics are translated to phonetics and word components. From here, the assembled sentences take a quick trip to the motor cortex, which then activates the muscles that turn words into speech. Damage to the Broca area results in the patient knowing what to say but is unable to send those impulses. So, when you listen to your inner voice, two things seem to be happening. You 'hear' yourself produce language in the Wernicke's area as you construct it in the Broca's area. This where the key to mind reading lies.

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4 A scalextric powered by the mind is the latest product to make use of our brain waves. Stephen Sigurnjak, senior lecturer in electronics at the University of Central Lancashire, has built a scalextric where the cars are powered by the players' level of concentration. "Your brain works off electrical activity, a bit like a computer," he says. "As you concentrate on something, it fires neurons in the brain." Mind-control scalextric headsets clip to the forehead to measure the level of mental activity. The thoughts are then organised into different frequency bands (the subconscious, for example, operates at a different level from conscious thoughts), the electric signal is processed by a computer and sent to a micro controller, which sends a corresponding level of voltage to power the car. But when I put on the headset, the car stays still. Dr Sigurnjak says that it helps to visualise the alphabet or arithmetic problems but this makes no difference—apparently my brain signals remain tiny. The car starts to move when I listen to Dr Sigurnjak's explanation but, once it's started, it's difficult to slow the car down. I try to stop thinking entirely—focusing on meditative breathing—and the car whizzes even faster, suggesting it takes an awful lot of brain power to try and shut down your thoughts.

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5 Though the scalextric is fun, there are plans to use mind-control power in far more sophisticated ways. "If you've had an accident or are paralysed, then your brain could still work even if your body can't. There's quite a lot of research that goes into that area, and trying to control things just by thinking about them," says Dr Sigurnjak. "The goal would be that you could think about turning left in a wheelchair and automatically turn left. And in the future, you might be able to translate your thoughts. So, you could think about what you want to write and a computer would type it out." The technology could also be used to measure anxiety in high-stress jobs so that if a pilot, for example, seemed to be overloaded and is at risk of making an error, then someone else could step in to help.

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6 Dr Sarita Robinson, senior lecturer in psychology at the University of Central Lancashire, says that using the brain as a power source has become more feasible as we've begun to understand how the mind works. "If you go back 100 years you could barely see inside the brain. We were pumping the skin around the skull with air and removing the cerebral fluid and taking some really dodgy x-rays just to get an image of what was going on," she says. "Now we have MRIs, cat scans, we can take blood flow images. In the future, we'll be able to look at a brain scan and see what a person's thinking about." At the moment, we can tell whether a person's hungry or thirsty based on their brain scan, but our mind-reading skills are still fairly primitive. Still, don't expect your thoughts to remain inscrutable for long.

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(Adapted from [www.telegraph.co.uk](http://www.telegraph.co.uk))

34 What does *broke new ground* (line 8) mean?

- A Built on the work of others
- B Produced unusual or unexpected results
- C Proved earlier theories on the subject to be false
- D Achieved something that had not been done before

Answer:

[Turn over

- 35 What was significant about Wernicke and Broca's works?
- A They succeeded in grouping certain phonemes into words.
  - B They enabled the understanding of the workings of the motor cortex.
  - C Their methods worked for speakers of languages other than English.
  - D They linked the production of certain speech sounds to recognisable brain activity.

Answer:

- 36 What does the writer conclude about scalextric?
- A It could become a form of entertainment.
  - B It can contribute to studies on language acquisition.
  - C Mobile technologies may become unreliable because of it.
  - D People would be awaiting the possibility of experimenting with its benefits.

Answer:

- 37 Which of the following is a possibility for mind reading?
- I Our inner voice can sometimes distract us when we are reading and writing.
  - II The possibility of reading minds enables the understanding of speech and action.
  - III Machines can be readily trained to interpret electrical signals from the brain that correspond to movements on a keyboard.
  - IV Mind reading is still at its elementary stage but it is not impossible to reach advanced possibilities.

- A I and II
- B I and III
- C II and III
- D II and IV

Answer:

- 38 The word *feasible* (line 51) may best be replaced with
- A possible
  - B probable
  - C achievable
  - D provable

Answer:

- 39 *Still, don't expect your thoughts to remain inscrutable for long* (lines 58 – 59). This means that
- A mind reading is popular
  - B mind reading is dynamic
  - C mind reading is evolving
  - D mind reading is not constant

Answer:

- 40 In the last paragraph, it can be inferred that the writer
- A wants people to be more open to the idea of mind reading
  - B does not think that conventional methods are received
  - C is of the opinion that mind reading is outdated
  - D believes that mind reading is a way of life

Answer: