

IELTS General Reading Sample Paper 1

Reading Passage 1

Blood Test

The world's first blood test to predict Alzheimer's disease before symptoms occur has been developed. The test identifies 10 chemicals in the blood associated with the disease two to three years before symptoms start, but it might be able to predict Alzheimer's decades earlier. Globally, 35 million people are living with Alzheimer's. It is characterised by a toxic buildup of amyloid and tau proteins in the brain, which destroys the neurons. Several blood tests can diagnose the disease, but until now, none has had the sensitivity to predict its onset. Howard Federoff at Georgetown University in Washington DC and his colleagues studied 525 people aged 70 and over for five years. The group showed no signs of mental impairment at the start of the study. Each year, the team performed a detailed cognitive examination and took blood samples from all the participants. During this time, 28 people developed Alzheimer's or mild cognitive impairment, thought to be the earliest noticeable sign of dementia, including Alzheimer's disease. An analysis of the participants' blood highlighted 10 metabolites that were depleted in those with mild cognitive impairment who went on to get Alzheimer's compared with those who didn't. In subsequent trials, the team showed these chemicals could predict who would go on to get Alzheimer's within the next three years with up to 96 per cent accuracy. The 10 metabolites play a key role in supporting cell membranes, maintaining neurons or sustaining energy processes. "We think the decrease in these chemicals reflects the breakdown of neural populations in the brain," says team member Mark Mapstone at the University of Rochester Medical Center in New York. Once verified in a larger group, the test should provide a cheap and quick way of predicting Alzheimer's. Mapstone says that it may even be able to predict the disease much earlier, because the brain changes associated with Alzheimer's begin many years before symptoms occur. "These metabolic changes might occur 10 or 20 years earlier – that would give us a real head start on predicting the disease," he says. The team is hoping to investigate this by looking back at other dementia studies in which blood has been taken over decades and seeing whether the chemical changes can be detected that early, says Federoff. The group also analysed the full genome sequence of all of the participants in the study. That work has yet to be published, but Federoff says the changes in genes over the five years of the study are even more powerful than the metabolites at predicting who will develop dementia.

1. This blood test predicts Alzheimer's:

- A. After the initial symptoms appear
- B. Before symptoms occur
- C. A few years earlier

New Option

2. Alzheimers is characterised by a toxic build up:

- A. Ependymal cells in the choroid plexuses of the ventricles of the brain.
 - B. Of amyloid and tau proteins in the brain.
 - C. Of bacteria in Cerebrospinal fluid
3. There are several blood tests that can diagnose the disease, but until now,
- A. Results were never as precise.
 - B. There was no parity between tests of different labs.
 - C. none has had the sensitivity to predict its onset.
4. Howard Federoff at Georgetown University in Washington DC and his colleagues studied 525 people aged 70 over a period of: -
- A. Few years
 - B. One decade
 - C. Five years
5. After research the team drew conclusion that decrease in 10 metabolites reflects the breakdown of:
- A. neural populations in the brain
 - B. Cells in brain
 - C. Red blood cells in blood.
6. Mapstone predicts that metabolic changes in brain associated with Alzheimer's might occur: -
- A. 10 or 20 years earlier
 - B. Couple of years
 - C. Few years
7. Along with metabolic changes in brain the group also analyzed: -
- A. The memory loss of participants.
 - B. The full genome sequence of all of the participants.
 - C. Effects of drugs on participants.

Reading Passage 2

Police community support officers in United Kingdom (Adventism)

Police community support officers (PCSOs) work in a neighborhood policing team dealing with minor offences and crime prevention. You can get into this job through an apprenticeship, volunteering and applying directly. You can get into this role through a higher apprenticeship as a police community support officer. To do this apprenticeship, you will need 4 or 5 GCSEs at grades 9 to 4 (A* to C) and A levels, or equivalent, for a higher or degree apprenticeship. You'll need good communication skills, and experience of working with the public in community settings will be useful. It may be helpful if you have experience of community work or you've volunteered as a special constable. You

can apply to become a police community support officer and often don't need formal qualifications. Employers will be more interested in your personal qualities and character. You'll need a good level of spoken and written English, so some police forces may ask for English GCSE at grade 4 (C). Each police force has its own selection process. This will usually involve, written tests, an interview and an interactive test to see how you work with other people.

What it takes: -

- excellent verbal communication skills
- active listening skills
- knowledge of public safety and security
- customer service skills
- patience and the ability to remain calm in stressful situations
- leadership skills
- negotiation skills
- legal knowledge including court procedures & regulations
- to be able to carry out basic tasks on a computer or hand-held device

Restrictions and requirements

You'll need to:

- be over 18 years of age
- pass a fitness test
- pass a medical check

What you will do

Day to day tasks

Your work will vary from one day to another, but will usually include:

- going on highly-visible foot and cycle patrols
- offering advice on crime prevention
- dealing with anti-social behavior alongside neighborhood wardens
- talking with young people and visiting schools
- building links with businesses and community leaders
- making house visits to reassure people and gather intelligence
- issuing fixed penalty notices

Working Environment

You could work in the community or on a patrol.

Your working environment may be physically and emotionally demanding and outdoors in all weathers.

You may need to wear a uniform.

1. Police community support officers primarily deal with:

- A. Prevention of littering in neighborhoods.**
- B. Serious offences being committed in Central Business Districts.**
- C. Minor offences and crime prevention in neighborhoods.**

2. Certain basic skills are essential to become a Police community support officer which include:

- A. Well-built and aggressive stature**
- B. Self defence expert**
- C. Good communication skills and previous experience of community work**

3. An eligible candidate must attain a certain age to work as a Police community support officer:

- A. 21 years**
- B. 18 years**
- C. 30 years**

4. A Police community support officer could be required to work:

- A. Work in the community or on a patrol.**
- B. In police raiding teams**
- C. Executing warrants**

5. Essential gear may involve:

- A. Wearing uniform at work**
- B. Carrying a baton**
- C. Carrying first aid kits**

Reading Passage 3

The California Gold Rush of 1849

A. The discovery of gold in the Sacramento Valley sparked the Gold Rush, arguably one of the most significant events to shape American history in the 19th century.

On January, 1848, James Wilson Marshall, a carpenter, found small flakes of gold in the American river near Coloma, California. At the time, Marshall was working to build a water powered saw mill for businessman John Sutter. As it happens just days after Marshall's discovery, the Treaty of Guadalupe Hidalgo What signed, ending the Mexican-American war and transferring California, with its mineral deposits, into the ownership of the United States. At the time, the population of the territory consisted of 6,500

Californios (people of Spanish or Mexican descent), 700 foreigners (primarily Americans) and 1,50,000 Native Americans.

B. Though Marshall and Sutter tried to keep news of the discovery quiet, word got out, and by mid-March 1848 at least one newspaper was reporting that large quantities of gold were being found. Though the initial reaction in San Francisco was disbelief, storekeeper Sam Brannan set off a frenzy when he paraded through town displaying a small bottle containing gold from Sutter's creek. By mid- June, some three quarters of the male population of San Francisco had left town for the gold mines and the number of miners in the area reached 4,000 by August.

C. As the news spread of the fortunes being made in California, the first migrants to arrive were those from lands accessible by boat, such as Oregon, the Sandwich Islands (now Hawaii), Mexico, Chile, Peru and even China. Only later would the news reach the East Coast., where press reports were initially skeptical. Throughout 1849, thousands of people around the United States (mostly men) borrowed money, mortgaged their property for spent their life savings to make the arduous journey to California. In pursuit of the kind of wealth they had never dreamed of, they left their families and local areas, in turn, their wives had no option but to shoulder different responsibilities such as running farms or businesses and many made a real success of them.

By the end of the year, the nonnative population of California was estimated at 100,000 (as compared with 20,000 at the end of 1848 and around 800 in March 1848). To accommodate the needs of the '49ers, as gold miners were known, towns had sprung up all over the region, complete with shops and other businesses seeking to make their own Gold Rush Fortune. The overcrowded chaos of the mining camps and towns grew ever more lawless. San Francisco, for its part, developed a bustling economy and became the central Metropolis of a new Frontier.

D. How did all these would be miners search for gold? Panning was the oldest way. The basic procedure was to place some gold bearing materials, such as river gravel, into a shallow pan, add some water, and then carefully swirl the mixture around so the water and light material spilled over the side. If all went well, the heavier gold nuggets or gold dust would settle to the bottom of the pan. Gold panning was slow even for the most skillful miner. On a good day, one miner could wash about 50 pans in the usual 12-hour workday.

E. Another way was to use what was called a 'rocker'. Issac Humphrey is said to have introduced it to the California gold fields. It was simply a rectangular wooden box, set at a downward angle and mounted on a rocking mechanism. The dirt and rock was dumped into the top, followed by a bucket of water. The box was rocked by hand to agitate the mixture. The big rocks were caught in a sieve at the top, the waste exited the lower end with the water, and the heavy gold fell to the bottom of the box.

The rocker had advantages and disadvantages. The advantages were that it was easily transportable, it did not require a constant source of water, and, most importantly, a miner could process more dirt and rock than with a pan. The primary disadvantage was that the rocker had difficulty in trapping the smallest particles of gold, commonly known as 'flour'. Some miners added small amounts of mercury to the bottom of the rocker. Due to its chemical composition, it had a facility to trap fine gold. periodically, the miners would remove and heat it. As it vaporized, it would leave gold behind.

F. After 1850, the surface gold in California had largely disappeared, even as miners continued to reach the gold fields. Mining had always been difficult and dangerous labor, and striking it rich required good luck as much as skill and hard work. Moreover, the average daily pay for an independent miner had by then dropped sharply from what it had been in 1848. As gold became more and more difficult to reach, the growing industrialization of mining drove more and more miners from independence into wage labor. The new technique of hydraulic mining, developed in 1853, brought enormous profits, but destroyed much of the region's landscape.

G. Though gold mining continued throughout the 1850s, it had reached its peak by 1852, when gold worth some \$ 81 million was pulled from the ground. After that year, the total take declined gradually, leaving off to around \$ 45 million per year by 1857. Settlement in California continued, however, and by the end of the decade the state's population was 3,80,000.

1. The writer suggests that Marshall's discovery came at a good time for the US because: -

- A. The Mexican - American war was ending so there were men needing work.
- B. His expertise in water power would be useful in gold mining.
- C. The population of California had already begun to increase rapidly.
- D. The region was about to come under the control of the US.

2. What was the reaction in 1848 to the news of the discovery of gold?

- A. The press played a large part in convincing the public of the riches available.
- B. Many men in San Francisco left immediately to check it out for themselves.
- C. People needed to see physical evidence before they took it seriously.
- D. Men in other mines in the US were among the first to respond to it.

3. What was the result of thousands of people moving to California?

- A. San Francisco could not cope with the influx of people from around the world.
- B. Many miners got more money than they could ever have earned at home.
- C. Some of those who stayed behind had to take on unexpected roles.
- D. New towns were established which became good places to live.

4. What does the writer say about using pans and rockers to find gold?

- A. Both methods required the addition of mercury.

- B. A rocker needed more than one miner to operate it.**
- C. Pans were the best system for novice miners to use.**
- D. Miners had to find a way round a design fault in one system.**