

Skills Test Unit 4 Test A

Listening

1 ♫ Listen to a lecture about human memory. Choose the correct answers (a–c).

- 1 What is the purpose of the lecture?
 - a To explain new theories about the way we remember things.
 - b To describe the way we process memories to a general audience.
 - c To explore complex aspects of the subject with an informed audience.
- 2 According to the speaker, how can memories be described?
 - a As things that are stored in one central place in the human brain.
 - b As a series of operations taking place in various parts of the brain.
 - c As a file system that collects thought processes and stores them.
- 3 According to the speaker, what does the hippocampus do?
 - a It makes decisions about what to encode and store.
 - b It encodes and stores all auditory and visual signals.
 - c It saves the important memories beneath the cortex.
- 4 According to the speaker, which of the following is true?
 - a Chemical messengers carry data around the brain on their own.
 - b Only particular, specialized brain cells are used to store memories.
 - c Storing memories is dependent on both electrical and chemical processes.
- 5 What does the speaker say is the great thing about the brain's flexibility?
 - a It enables us to store an infinite number of memories.
 - b It can respond in order to prioritize new memories.
 - c It is particularly good at keeping memories that help us learn things.

Mark: ___ / 10

Reading

What makes a genius?

The thing about geniuses is that they don't think like you and me. They make connections that nobody else had ever thought of, and come up with ideas that are inspired and original. So, what makes a genius, how do their brains work, and how can the rest of us learn to think just like them?

For decades, psychologists have investigated genius, and their conclusions have debunked the idea that it is exactly synonymous with high intelligence or with an ability to learn more than most. In fact, being a genius is more about being creative in thought than being incredibly smart, about brainstorming ideas, not learning facts. There are gifted people in the world who can score over 200 in an IQ test, or solve complicated brain teasers, and there are precocious five-year-olds who can speak ten languages. However, none of this makes anyone a genius. It's how they think, not what they know, that sets geniuses apart.

When faced with a puzzle or a problem, most people of average intelligence tend to figure out the expected conventional response. They think reproductively and exclusively. In other words, they solve problems by relying on past experience and knowledge, and they focus on finding the most obvious and natural solution. In a maths class, for example, when asked to work out fractions or equations, average people try to apply what they have learned to finding the answer. By contrast, geniuses apply their minds to rethinking the problem or working out as many different solutions to any problem as they can. Albert Einstein once explained this way of thinking brilliantly: he said that when asked to find a needle in a haystack, most people would stop when they found the needle, but that he wouldn't stop until he had found all the needles.

As well as being inclusive and creative in their thinking, geniuses also tend to be good at expressing their thoughts visually, and being prolific in their output. Witness the remarkable anatomical drawings and detailed engineering diagrams of the undoubtedly genius Leonardo da Vinci, and the prodigious output of Wolfgang Amadeus Mozart, who produced over six hundred different musical scores in his career. Perhaps most fascinatingly of all, geniuses are able to bring conflicting ideas together in ways that others cannot envisage. Many of the great inventions or discoveries of history came about because somebody was able to notice and connect two things that previously seemed quite unconnected. Charles Darwin, for example, saw a connection between the uniqueness of life on the Galapagos Islands, and the way that characteristics are passed on through the generations by reproduction. From this, he was able to develop his theory of natural selection, which has transformed the way we see the world.

So, how can we learn to think like a genius? Education, for the most part, encourages us to think extensively. In general terms, schoolwork is about racking our brains to find the correct solution to problems, solutions which are actually already known. However, as we have seen, if you want to think like a genius, you need to take a different approach. You need to be curious about the world around you, to observe and record what you notice, and to examine all possibilities. You should also practise the Socratic Method. The great Greek philosopher Socrates was famous for asking questions which he didn't know the answers to, and for not assuming that he knew anything. In addition to the Socratic method, you should also endeavour to test your knowledge through experience, and learn from your mistakes. Most of all, you need to embrace ambiguity and uncertainty, to try to find connections between things that seem opposite and unconnected. We can't all be brainboxes, but it's by questioning what we know and seeking out new patterns and connections that we can start to think like a genius.

2 Read the article. Are the sentences true (T), false (F) or not given (NG)?

- 1 The writer claims that until recently, there hasn't been much research into the way geniuses think. _____
- 2 According to the article, geniuses think differently, but they don't necessarily have the highest IQs. _____
- 3 The ability to learn languages easily at an early age is a feature of what makes a genius. _____
- 4 Geniuses are much quicker at applying all the things they have learned than most people. _____
- 5 The writer uses a quote by Albert Einstein to illustrate the idea that a genius would try to generate alternative approaches to a problem. _____
- 6 The writer considers the capability of geniuses to visualize new art forms to be the most interesting of their abilities. _____
- 7 Wolfgang Amadeus Mozart was a more prolific genius than Leonardo da Vinci. _____
- 8 The writer claims that the way we learn at school prepares us to think like a genius. _____

9 The Greek philosopher Socrates believed that from our errors we could learn lessons that might inform our understanding. _____

10 The writer states that the essential aspects of thinking like a genius are to start from a position of not knowing anything, to keep an open mind and to learn through experience. _____

Mark: _____ / 10

Challenge!

3 Complete the text with the correct words (a–d).

The intelligence of dogs

It would be fair to say that some dogs are more intelligent than others. Some are bright enough to sniff out drugs at an airport or rescue mountain climbers, while others are so scatter-brained that you can't expect them ¹ _____ the most basic of commands even after hours of training. Getting some dogs to stop ² _____ is hard enough! Of course, some dogs are more ³ _____ to certain types of training than others. It's easy to train a sheepdog to herd sheep, for example, because sheepdogs have a natural ability to do that. It's a form of instinctive intelligence that comes with the breed. But if you happen ⁴ _____ to train ⁵ _____ to do the same thing, well, good luck is all I can say. Recently, I ⁶ _____ the brains of leading animal psychologist Jo Ripley, who admitted ⁷ _____ much of the last decade devising IQ tests for dogs. She explained to me how to carry out a simple problem-solving test to find out whether a dog is quick-witted or not. It involves placing a towel over the dog's head and seeing how long it takes to escape from under it. Fewer than fifteen seconds suggests a bright dog. I can imagine my dog being stuck under there for half an hour! It's not that easy, of course, as the saying goes, to teach ⁸ _____, but Jo has spent a career trying.

1 a to have learned b having been learned c have learned d having learned

2 a bark b to bark c barking d to barking

3 a methodical b introspective c intuitive d receptive

4 a try b to try c tried d trying

5 a the poodle b poodle c one poodle d a poodle

6 a chose b racked c picked d took

7 a having spent b to have spending c to have spent d have to spend

8 a old dogs the new tricks b an old dog new tricks

c old dog new tricks d the old dogs the new tricks

Vocabulary

4 Complete the sentences. Use words and expressions with *brain*.

1 Professor Jones is the most absent-minded, _____ scientist I have ever met, but still, he is a brilliant mathematician.

2 At first Doctor Ferguson couldn't make the experiment work, but then she had a _____ – if she heated the mixture, it would probably last longer.

3 Since you are a zoologist, would you mind if I _____ about the impact of cognition on evolution?

4 We both _____ trying to remember where the key for the laboratory was kept, but neither of us could.

5 In the first round, all participants will be asked to complete a set of _____ sorted in several sections: logic, numbers and sequences, cryptograms and visual puzzles.

6 Software engineer Matt Clark was _____ the development of the app *READ*.

7 The idea was the _____ of an international company specializing in software solutions for electronic publishing and knowledge management.

8 We've been _____ by mainstream media into thinking that science and medicine can offer simple solutions to complex problems like obesity and ageing.

Mark: ___ / 8

5 Choose the verb that is *not* possible in each sentence.

- 1 Scientists have **accomplished / conducted / carried out** research into the cerebral cortex.
- 2 We mustn't **cease / give up / pass on** trying until we have solved this problem.
- 3 Two groups of engineers **collaborated / made out / teamed up** to develop the new aircraft engine.
- 4 I have seen several specialists, but I still can't **conquer / discern / get over** my fear of heights.
- 5 Let's try to **put up / clear up / resolve** this matter once and for all.
- 6 How can we **ascertain / impede / find out** the whereabouts of the missing children?
- 7 It's amazing how she **reels off / recites / pins on** all these long poems. What a memory!
- 8 I can't **install / make out / discern** the image under the microscope. It isn't clear enough.
- 9 The group is **comprised / made up / made out** of technicians from all over the country.
- 10 Nerve endings **comprise / transmit / pass on** messages to the brain.

Mark: ___ / 10

6 Match the descriptions of intelligence or ability 1–8 to words A–H.

- 1 Henry's really good at working out problems.
- 2 Jenny expresses herself extremely clearly.
- 3 Being young and inexperienced, Emma is easily influenced by what others say or do.
- 4 Jack works very hard, and does things step-by-step.
- 5 Sarah seems to always know exactly what everybody else is up to.
- 6 Andy is great with his hands and can make almost anything.
- 7 Myra is open to new ideas.
- 8 Ted is friendly and very outgoing.

A impressionable _____

B dexterous _____

C observant _____
D deductive _____
E receptive _____
F articulate _____
G sociable _____
H methodical _____

Mark: ___ / 8

7 Complete the words with the correct adjective or noun suffixes.

- 1 A lot of what he said was contradict _____. It didn't make any sense.
- 2 There seems to be a dispar ____ between what you say and what you do.
- 3 Scientists selected a homogene _____ group of young people for the trial.
- 4 There are diverg _____ opinions on some of the issues raised by the author of this paper.
- 5 The two tools are interchange _____. They look the same and have the same function.
- 6 In my view, raising the rent is analog _____ to cutting someone's pay: both lead to hardship.
- 7 The Prime Minister warned of pay cuts and the correspond _____ effect on the economy.
- 8 There is wide vari _____ in the therapeutic effect of treatments available.

Mark: ___ / 8

Grammar

8 Complete the sentences with the correct form of the verbs in brackets.

- 1 Jill sat on a bench on the promenade, _____ (stare) out to sea.
- 2 Joe found himself standing in a field _____ (surround) by cows. He didn't know what to do.
- 3 Could you please remember _____ (post) the letter on your way home?
- 4 I noticed her _____ (breathe) and realized she was alive.
- 5 The community centre helped us _____ (raise) enough funds to buy what we needed.
- 6 Despite the apparent complexity of the puzzle, the mathematicians succeeded in _____ (solve) it in next to no time.
- 7 We heard someone _____ (fire) a single shot. It reverberated along the valley, then there was an eerie and complete silence.

Mark: ___ / 7

9 Complete each sentence with two words. Use the infinitive or -ing.

- 1 Some of the older islanders recall _____ visited by explorers over sixty years ago.
- 2 The 2014 biopic film about Grace Kelly's life, *Grace of Monaco*, was criticized _____ historically inaccurate.

3 Surprisingly, the scientist consented _____ interviewed by journalists about the failed experiment.

4 Susan appreciates _____ included among the wedding guests.

5 Simon just happens _____ waiting outside right now.

6 I remember _____ allowed to stay up late to watch the cup final. I was so upset that I couldn't watch it.

Mark: ___ / 6

10 Complete the text with *a*, *an*, *the* or – (no article).

Watson

Watson is an artificially intelligent computer designed by ¹ _____ team of scientists at IBM, ² _____ American multinational technology and consulting corporation based in New York.

Watson is arguably ³ _____ world's most intelligent computer, but it wasn't designed to find ⁴ _____ cure for cancer or to improve the lot of ⁵ _____ world's poor. It was built to compete on an American game show called *Jeopardy*, on which people have to choose correct answers to ⁶ _____ general knowledge questions from three options, and press a buzzer to be the first to answer. Because of its huge memory and remarkably quick reaction time, Watson consistently outperformed ⁷ _____ human contestants on the show and won the \$1 million first prize!

Since 2013, the computer has been used by medical professionals to help them in ⁸ _____ treatment of patients. It is able to process notes from physicians and nurses, research materials, clinical studies and patient information to recommend a course of treatment for individuals.

Mark: ___ / 8

TOTAL MARKS: ___ /