

Stage 1

Level B2

Name _____

Time: 60 minutes

Answer all questions.

Use black ball-point pen on your answer sheet.

Do NOT use pencil.

At the end of the test the supervisor will collect your paper and answer sheets.

Instructions may also be given in your language by your supervisor.

Good luck!

▪ Part 1 ▪

Questions 1-10

Complete the gaps in the text. Choose **A, B, C** or **D**

How Astronauts Shower in Space

Having a shower or a bath is something most of us take for granted on Earth. But what about in space? Surely, they can at least have a good shower to start their day. Well, no. And it has a lot to do **(1)** _____ gravity. The lack of gravity means that water, soap or shampoo just **(2)** _____ to you. Things have changed a lot since the first man went into space but showering in space has not changed much.



On the Apollo mission NASA chose the **(3)** _____ solution. Astronauts cleaned themselves using a sponge, soap, very little water and a towel. As there was no way to **(4)** _____ water astronauts were given very little water to wash with during their trip. This meant that when they came back down to earth they did not exactly smell **(5)** _____ roses.

Jennifer Levasseur from the Space Museum once told a reporter that the people who went to greet the astronauts when they arrived back on earth, couldn't believe how **(6)** _____ they smelled.

On a recent Skylab mission astronauts took showers in something **(7)** _____ a tube. They called these cucumber showers. Of course, they had to put their feet into hooks to stop them from floating around and then they attached a portable bottle of water with a hose to the ceiling.

Next, they pulled a round **(8)** _____ plastic wall up and hooked it to the ceiling. When they finished with soaping, they washed off with water by pressing the button on the bottle to force the water out. But it didn't end there. Their next important job was to gather all the water and soap and put it into a bin because floating drops of water could get into the electronics or instruments of the spacecraft. The whole **(9)** _____ of showering from start to finish usually took each astronaut about two hours.

On the International Space Station, astronauts do not shower but rather use liquid soap, water, and shampoo. They squeeze liquid soap and water from pouches onto their skin. Then they use **(10)** _____ shampoo with a little water to clean their hair. They use paper towels to wipe off the excess water.

- | | | | | |
|----|--------------|-------------|----------------|-----------------|
| 1 | A) for | B) with | C) round | D) because of |
| 2 | A) stays | B) glued | C) sticks | D) remains |
| 3 | A) sample | B) only | C) smelly | D) simplest |
| 4 | A) conserve | B) hold | C) freeze | D) boil |
| 5 | A) as | B) like | C) from | D) aroma |
| 6 | A) wonderful | B) great | C) interesting | D) bad |
| 7 | A) looking | B) as | C) resembling | D) such as |
| 8 | A) feeling | B) shaped | C) look | D) squared |
| 9 | A) process | B) proceeds | C) time | D) work |
| 10 | A) rinseless | B) useless | C) drops | D) gravity free |

▪ Part 2 ▪

Questions 11-18

Read the extracts **A-D** and answer the questions. Choose **A, B, C** or **D**

A

If you are like me and forget your password about three minutes after you create it, then you will be interested to learn about people who never forget anything. Yes, never! This condition is called hyperthymesia. It is extraordinarily rare, with only about 60 people in the world having been identified to date. It is doubtful that this number will increase very rapidly due to the difficulties of identifying people in this particular category.

As a psychologist I have had long discussions with somebody who falls into this category and they could tell you what they ate for breakfast, lunch and dinner, on 20th February 2002. Or who they talked to after class on 15 May 2007. Pick any date and they can pull from their memory the most prosaic details of that thin slice of their personal history. There is still much unknown about hyperthymesia, but scientists believe that it may be caused by a combination of genetic and environmental factors. For example, a study published in the journal *Brain* found that people with hyperthymesia tend to have a larger than average hippocampus – the area of the brain responsible for memory formation. This suggests that there may be a genetic component to hyperthymesia.

B

Hyperthymesia has been with me since I was perhaps 2 years old. I can remember in great detail the events that took place in my life. I am 58 years old and was born and raised in New York City. I can remember my entire life, including the first day of kindergarten and the names of all my teachers and classmates. The smells, sights and feelings are as if it happened yesterday. Hyperthymesia is also a curse. Imagine remembering everything. It is not something I choose but an involuntary action. Imagine feeling the emotions, whether happy or sad, and reliving the experience again and again. It's like I am stuck in a dark room with nothing but a giant HD television screen, with the room nailed shut, and I am forced to watch it all day, from the very beginning of my life up to this moment in time.

C

Having some experience with hyperthymesia, I can tell you that one of the areas that this condition can be very helpful in is extracting data from material, whether written or verbal. People with hyperthymesia are sensitive and pick up on cues easily. I once worked in the Federal Court of Appeals where my job was to listen to witness testimony and identify any discrepancies in their testimony to aid the sitting judge in their decision making. Remembering many details of a person, place or thing with precision, and then seeing if the story changes or is contradicted can be a useful skill.

D

Some scientists wonder how long it would take for someone with hyperthymesia to run out of space in their brain. I guess it would take a long time, but we don't know the full answer.

The biggest problem with answering this question is that we don't know much about hyperthymesia. Very few people seem to have it; the known cases are in the dozens.

Testing and studying them would be a major undertaking, even if they agreed to be studied.

What we do know is that people with hyperthymesia seem to lead normal lives. It may make their lives easier, or it may impose burdens, but it doesn't seem to make them superhuman or even super successful. They aren't the smartest people, and they don't seem to become leaders.

Some researchers believe it's an innate memory ability, while others are sceptical and propose that it's a set of developed skills. How someone else could develop those skills has yet to be answered.

- 11 The writer of extract A says that_____.
- A) the number of people with hyperthymesia will most likely not increase
 - B) hyperthymesia is caused mainly by genetic factors
 - C) the journal *Brain* found people with a larger than average hippocampus
 - D) identifying people with hyperthymesia is not an easy task
- 12 In which extract does the writer suggest that people with hyperthymesia don't differ greatly from most people?
- A) extract A
 - B) extract B
 - C) extract C
 - D) extract D

- 13 From the extracts we understand that _____.
- A) people with hyperthymesia find it to be a curse
 - B) hyperthymesia starts from about the age of two
 - C) if you have the condition of hyperthymesia you will never become a leader
 - D) there is not a lot of information available on hyperthymesia
- 14 What can we conclude from extract B?
- A) That with hyperthymesia, remembering is not a choice you make
 - B) It is the same as watching TV in a locked room
 - C) You cannot control your emotions when you remember something
 - D) You will remember the names of all your teachers if you have hyperthymesia
- 15 Which extract implies that hyperthymesia may be something that can be developed?
- A) extract A
 - B) extract B
 - C) extract C
 - D) extract D

For questions 16-18 choose A, B, C or D

In which extract does the writer _____?

claim that this condition has been with him a long time

imply that hyperthymesia may be of wider benefit to society

infer that people with this condition may not wish to share information

16	
17	
18	

▪ Part 3 ▪

Questions 19-25

Read the article and answer the questions. Choose **A, B, C** or **D**

Can Fingerprints Be Recovered After They Have Been Wiped?

There are billions of people on this planet and everyone has their own tapestry of loops, whorls, and ridges which make up our fingerprint. The presence of a searchable and distinct sequence of shapes can act as anchor points for forensic experts and the fingerprint recognition software when cross-referencing fingerprints on record with biometric databases.

But don't we need ink in order for our fingerprints to show?

The mobile phone you held a short while ago or the bottle you are drinking water from hold the invisible evidence of your presence; they now carry a trace of you because every contact leaves a trace. Even if your fingertips aren't soiled by ink, dirt, or dust, they still leave behind chemical imprints on the things you touch because the glands under our skin secrete sweat, oils, and amino acids. This is what helps forensic experts lift even the invisible fingerprints from a crime scene.

So how can they get the fingerprint?

Since the fingerprints are almost invisible, they have to use chemistry and one way of doing this is by using powder. This powder sticks to the oils left by the fingerprint and they can then get an image onto a transparent tape.

But what happens in cases where the fingerprint has been wiped off? In the movies, we often see criminals wiping a gun with a cloth to get rid of any fingerprints and this leaves investigators with very little to go on. They then had to ensure that all other evidence was exploited to the full. Well, things have changed.

Today, they can still get fingerprints after they have been wiped off.

Scientists have developed a new method that can display prints from even the weakest form of fingerprint, even after the item has been wiped clean. This is achieved using an electro-active film which picks up any leftover of the fingerprint. When they pass voltage through the item, it shows the pattern of the fingerprint.

So, any criminal who thinks they are being smart by wiping away their fingerprints might be in for a surprise.

19 Which of the following is true according to the passage?

- A)** Not leaving a fingerprint is impossible today
- B)** In order for a fingerprint to disappear completely it must be covered with a powder
- C)** Investigators may have access to a record of your fingerprints
- D)** Fingerprints may be identified even when wearing gloves

Turn to the next page

- 20 From the information in the text we can conclude that_____.
- A) it is not possible to match a fingerprint if there isn't already a record of it
 - B) to match a fingerprint, they only use metric databases
 - C) almost all fingerprints are unique
 - D) you only need ink when giving your fingerprints to the police
- 21 How can forensic experts see our fingerprints?
- A) They use a special powder which our hands stick to
 - B) They use a special tape and brush
 - C) They can take our things like mobile phones etc. to get a fingerprint
 - D) They use what our fingers secrete to help them lift our fingerprint
- 22 What used to happen when criminals wiped their fingerprints off the weapon?
- A) The fingerprints completely disappeared
 - B) They would be able to get away with the crime
 - C) This used to make things more difficult for investigators
 - D) It would help the investigators to look for other evidence
- 23 According to the text _____.
- A) fingerprinting now relies on having searchable databases
 - B) every time you touch something you leave something behind
 - C) if you don't want to leave a fingerprint you should not sweat
 - D) the police always use ink to get the fingerprints of criminals
- 24 What has changed in the way fingerprints are now uncovered?
- A) They no longer use powder and brushes
 - B) It is more varied and incorporates new methods
 - C) They can now find all the fingerprints they could not find in the past
 - D) It changes how criminals in the movies wipe their fingerprints
- 25 What can we conclude from the text?
- A) That criminals should not try to wipe off fingerprints in the future
 - B) New methods mean that most fingerprints are now on a database
 - C) The pattern of the fingerprint can also show the voltage used to get it
 - D) It's more difficult to hide your fingerprint today

▪ Part 4 ▪

For questions **26-31** choose the word(s) closest in meaning to the underlined word(s)
For questions **32-35** choose **A, B, C** or **D**

Why Can't You Just Beam Me Up?

"Beam me up" is one of the most famous catchphrases from the "Star Trek" series. Indeed, it's not only convenient but can be useful when one is in a **(26) thorny** spot. But can this really happen? How long will it take and will I be able to download the teleporting application soon?

While human teleportation appears only in science fiction, teleportation is now possible in the subatomic world of quantum mechanics. This kind of teleportation refers to the transportation of information, not matter.

In 2020, scientists announced that information could be passed between photons on computer chips even when the photons were not physically linked. However, scientists are now looking at new ways of creating quantum-mechanical **(27) interactions** between distant electrons.

Albert Einstein called quantum teleportation "spooky action at a distance". This phenomenon, also known as quantum **(28) entanglement** is where the properties of one particle affect the properties of another, even when the particles are separated by a large distance.

So, in answer to the question, 'Is teleportation possible?' it seems the answer is yes, but it is incredibly complicated and we are not even talking about human teleportation at this stage. The problem is simple. According to Einstein's theory of relativity, nothing can travel faster than the speed of light, which means disappearing from one place and reappearing in a flash somewhere else simply isn't possible.

The truth is that nobody actually likes travelling. Even when they say they do, what they really mean is that they like arriving at a new place. It's difficult to see why anyone would enjoy the daily **(29) commute**. Rushing to catch a bus or a train, standing on crowded buses or trains or spending ages waiting around in airports just to get on a plane for hours – and having been allocated a middle seat.

So yes, the idea of starting your holiday right away and not having to travel there or leaving work or school and finding yourself instantly in the place you want to be, sounds attractive.

But there are problems.

True teleportation means happening instantly. You would have to **(30) dematerialize** and then appear at your destination immediately. Here again, we have the problem that nothing can travel faster than the speed of light, which rules out this possibility.

The next best option would be to send all the information about the person. By teleporting their biological information, we could send them somewhere else. To do this, we would need to scan every atom in the body and know what kind of atom it is before we could send it to the destination we want.

One question that comes to mind immediately, even if this were possible, concerns the original person. The person who arrives at the destination has been recreated, so is the original person dead? How can we be sure they are the same person?

To add to that, there is the Heisenberg's uncertainty principle. This principle says that it is impossible to know everything about an atom and to pinpoint exactly where it will be at any given time. But for teleporting to take place we need to know both of these factors to get the same person at the other end. This brings us back to the quote below.

'Things can travel at very high speeds, but they can never achieve light speed. That means that you, and the molecules and particles that make up who you are right now, would never actually be able to teleport. Not instantaneously, and not at the speed of light'

However, the current research being carried out is an important step in improving quantum computing and has the **(31) potential** to revolutionize technology, medicine and science by providing faster and more efficient processors and sensors.

But what about wormholes, some would say.

In movies, we have been introduced to the "portal" type of teleportation. This opens up a doorway that you step through and find yourself somewhere else. Wormholes are theoretical tunnels that connect points in space that are far away, and physicists have definitely proposed the existence of multiple dimensions beyond the three we are familiar with.

All of this is still very theoretical. We haven't seen a wormhole, nor do we have any idea how to open one or control where it leads. And extra dimensions aren't really something you can move into, as far as we know.

So, for now we can only close our eyes and visualise being in a different location or imagine getting into a time machine and whizzing off to our place of choice. Not as exciting as human teleportation but perhaps just as realistic. And by the way, don't spend too much time checking for the release date of that teleporting app for your phone, as it may take a little longer than we think.

- 26 A) uncomplicated
 B) problematic
 C) spiked
 D) aggressive

- 27 A) separation
B) speaking
C) disconnect
D) communication
- 28 A) twisted
B) released
C) clarity
D) liaison
- 29 A) go back and forth
B) communicate
C) increase
D) lengthen
- 30 A) dissolve
B) transformation
C) solidify
D) remain
- 31 A) power
B) certainty
C) development
D) possibility
- 32 Which of the following statements is true?
A) Today it is still only possible to teleport photons and electrons.
B) All experiments in the teleportation of humans have failed so far.
C) There are also dilemmas surrounding the potential of teleporting humans.
D) Teleporting humans is still something scientists think is possible.
- 33 From the text we can infer that _____.
A) only matter can travel at the speed of light but not humans.
B) teleporting is more complicated than fictional stories have led us to believe.
C) travelling by the use of teleporting is much easier
D) two things need to be taken into account before teleporting takes place.
- 34 According to the text _____.
A) the only way to teleport today is by using your imagination or a time machine
B) a wormhole needs a door if you want to get somewhere else in space
C) scientists claim that there are more than the three dimensions we know about
D) being teleported might not be instant
- 35 What can be assumed from reading the passage above?
A) Wormholes are still something scientist are trying to open.
B) It seems highly unlikely that teleporting humans will ever be possible
C) If we travel faster than light, then the future of teleporting humans looks good.
D) A person would not be the same after being teleported.

▪ Part 5 ▪

Questions 36-40

Complete the sentences with the correct word that is spelt correctly. Choose **A**, **B** or **C**



36 He had a clear _____ and knew he had made the right decision.

- A)** conscious **B)** conscience **C)** consceince

37 The motorway runs _____ with the railway.

- A)** parallel **B)** parellel **C)** paralel

38 Sorry I asked that question. I didn't want to _____ you.

- A)** embarass **B)** embarras **C)** embarrass

39 Hamlet was a _____ character .

- A)** ficticious **B)** fictitious **C)** fictitous

40 Her lawyers used her _____ insanity as part of her defence.

- A)** aledged **B)** allegid **C)** alleged