

NÁRODNÍ SROVNÁVACÍ ZKOUŠKY

AJ

TEST Z DUBNA/APRÍLA 2021

Datum konání zkoušky: 17. dubna 2021

Max. možné skóre: 60

Počet řešitelů testu: 1 601

Max. dosažené skóre: 60

Počet úloh: 60

Min. možné skóre: -17,3

Průměrná vynechanost: 9,7 %

Min. dosažené skóre: -7,3

Správné odpovědi jsou označeny.

Průměrné skóre: 31,2

Pokyny ke zkoušce:

- **Test obsahuje 60 úloh.**
- **Je rozdělen do 3 oddílů, na řešení prvního máte 23 minut (délka nahrávky), na každý další 20 minut.**
- **Pracujte vždy jen na příslušném oddílu, časy nejsou převoditelné.**
- **U každé úlohy s výběrem možností je jen jedna správná odpověď.**
- **Za každou správnou odpověď získáte bod, za špatnou odpověď (s výjimkou posledních 8 úloh) část bodu ztrácíte.**
- **Nejlepší je řešit nejdříve snadné úlohy a k náročnějším se vrátit.**
- **Nebudte nervózní z toho, že nevyřešíte všechno, to se povede málokomu.**

1. Listening

Listening 1

You will hear a text which is followed by several tasks. You will be given time to look through the relevant tasks before you listen. You will hear the recording twice. Solve the tasks based solely on the information in the recording.

QUESTIONS 1–6

Listen to the story about George Washington and his journey.

(<https://www.mountvernon.org/george-washington/washingtons-youth/journey-to-barbados>)

1.

Who was Lawrence Washington in relation to George Washington?

- (A) his full sibling
- (B) **his half sibling**
- (C) his cousin
- (D) his uncle

2.

Why were Lawrence and George travelling to Barbados?

- (A) **Lawrence was suffering from a disease.**
- (B) They wanted to discover a new country.
- (C) George wanted to meet his wife there.
- (D) They had close friends in Barbados.

3.

We cannot get detailed information about the voyage from the main source, George's diary, because _____.

- (A) he did not take notes very often
- (B) he hid a part of it
- (C) **it was badly damaged**
- (D) a part of it was stolen during a mutiny on the ship

4.

When the ship approached Barbados, the crew was _____.

- (A) disappointed
- (B) relieved
- (C) **astonished**
- (D) indifferent

5.

Why was George unsure about going to the house which belonged to Lawrence's wife's uncle?

- (A) Because George had a disease he did not want to spread.
- (B) Because Lawrence said the uncle was dreadful.
- (C) Because the uncle was reluctant to receive them.
- (D) **Because there was a contagious disease in the house.**

6.

George's visit to Barbados _____.

- (A) brought misfortune into his career life
- (B) caused his untimely death
- (C) **lasted several months**
- (D) was an inspiration for his book about history

1. Listening

Listening 2

You will hear a series of short unrelated extracts. There is one task for each extract. You will be given time to read the relevant task before you listen. You will hear each extract twice. Solve the tasks based solely on the information in the recording.

7.

You hear a piece of news about new machines installed in Istanbul.

The machines allow people to _____.

- (A) re-fill their water bottles using their Istanbul travel cards
- (B) dispose of plastic bottles while on board a bus or tram
- (C) charge their mobile phones in exchange for recycled plastic items
- (D) **top up their Istanbul travel cards using discarded plastic**

8.

You hear a woman talk about her pregnancy-related experiences.

What does she complain about?

- (A) about the way her body changes
- (B) **about being constantly given unsolicited advice**
- (C) about having to switch from regular coffee to decaf
- (D) about strangers thinking they can touch her belly

9.

You hear a piece of news about a Chinese driver.

The man was _____.

- (A) trying to call the authorities while driving
- (B) fined for having scratched a traffic camera
- (C) **falsely accused of breaking a traffic rule**
- (D) fined for waving at a traffic camera with a mobile phone

10.

You hear someone talking about a Japanese KuToo campaign.

The campaigners demand that _____.

- (A) women should get higher salaries
- (B) wearing high-heeled shoes should be obligatory for women working in a big company
- (C) **women shouldn't be expected to wear uncomfortable footwear at work**
- (D) high heels should be banned in the whole country because they damage feet

11.

You hear a short fact.

According to the recording, when talking to their male friends, men _____.

- (A) **have a longer attention span than when talking to their female partners**
- (B) often discuss their female partners
- (C) discuss less personal topics than when talking to their female partners
- (D) cannot listen attentively for more than 6 minutes on average

12.

You hear a piece of news about an accident that happened in the town of Werl, Germany.

According to the fire department, there will likely be _____.

- (A) an ongoing emergency until Christmas
- (B) a shortage of chocolate due to the accident
- (C) detours because of the numerous closed roads in Werl
- (D) **enough chocolate supplies for Christmas**

2. Reading

Reading 1

Read the following text and solve the tasks based solely on the information in it.

QUESTIONS 13–20

You are going to read about four African people whose inventions have been shortlisted for the Royal Academy of Engineering Africa prize. For each of the questions below, choose from the people A–D. The people may be chosen more than once.

A – Allela (Kenya): Sign-IO

Roy Allela's six-year-old niece was born deaf. She found it difficult to communicate with her family, none of whom knew sign language. So Allela – a 25-year-old Kenyan technology evangelist – invented smart gloves that convert sign language movements into audio speech. The gloves – named Sign-IO – have flex sensors stitched on to each finger. The sensors quantify the bend of the fingers and process what is being signed. The gloves are paired via Bluetooth to a mobile phone application that Allela also developed, which then vocalises what has been signed. The gloves can be packaged in any style the user wants, whether that's a princess glove or a Spider-Man one. "It fights the stigma associated with being deaf and having a speech impediment," Allela says.

B – Matovu (Uganda): The Farm in a Box

More than two-thirds of Uganda's population engages in farming, but rapid population growth in the capital, Kampala, means that not everyone who would like to grow their own fruit and veg has the space or land to do so. This was the issue faced by Paul Matovu, who was born into a family of 20 children and raised by his grandparents in the Ugandan countryside, where he learned all about growing crops. While living in Kampala as a cash-strapped university student, he began looking for space-saving ways to grow his own food. His solution was the "farm in a box", a sustainably sourced timber box measuring 90cm wide by 90cm high that can hold up to 200 plants. The farms currently retail at £64, a high price for the average Ugandan, says Matovu, but as the boxes produce food worth £275 every year, costs can be quickly recouped. "Our goal is to roll out the farms to the rich, because they do not mind how expensive the boxes are," says Matovu. "Then we can subsidise sales to the poor."

C – Koigi (Kenya): Majik Water

When Beth Koigi moved into her university dormitory in eastern Kenya, she was horrified that the water coming out of the tap was filthy and laden with bacteria. Within months, she had built her first filter and was soon selling filters to others. When drought hit in 2016 and water restrictions saw Koigi's water supply turned off entirely, she began thinking about water scarcity. Following this experience, Koigi, 27, joined up with two other women while on a four-month programme in Silicon Valley to create Majik Water. Koigi finds it amusing that Majik sounds like magic in English but at the same time, the name refers to the Swahili "maji" for water and "k" for "kuna" (harvest). It is a device which captures water from the air and converts it into drinking water using solar technology. The solar panels used for the prototype are the most expensive input on the device, says Koigi, who is looking for ways to drive those costs down.

D – Hutiri (South Africa): Pelebox

When Neo Hutiri was diagnosed with tuberculosis in 2014, the South African engineer was forced to spend three hours every two weeks waiting at his local clinic just to collect his medication. Queuing alongside patients requiring chronic therapy for health issues ranging from cancer to AIDS, Hutiri wondered how he could apply technology to the problem and ease the burden for South Africa's overrun public hospitals which constantly struggle with a lack of healthcare workers. Hutiri's move was to automate the filing system as much as possible by designing the Pelebox (the word "pele" means fast in Setswana), a smart locker that acts as a self-service kiosk. South Africa's pharmaceutical council was intrigued by the Pelebox, but needed reassurance that the right medications would be delivered to the right patients. Hutiri piloted the project in Pretoria and was overjoyed at the results: 4,700 medications were delivered at a 100% success rate.

<https://www.theguardian.com/global-development/2019/jan/01/africa-inspired-inventors-royal-academy-of-engineering-prize>

2. Reading

13.

Which person's invention deals with the issue of staff shortages?

- (A) Allela's
- (B) Matovu's
- (C) Koigi's
- (D) **Hutiri's**

14.

Which person's invention tackles the problem of soil scarcity?

- (A) Allela's
- (B) **Matovu's**
- (C) Koigi's
- (D) Hutiri's

15.

Which person emphasises the pun behind the name of their invention?

- (A) Allela
- (B) Matovu
- (C) **Koigi**
- (D) Hutiri

16.

Which person's invention improves the process of dispensing drugs?

- (A) Allela's
- (B) Matovu's
- (C) Koigi's
- (D) **Hutiri's**

17.

Which person's invention captures motion?

- (A) **Allela's**
- (B) Matovu's
- (C) Koigi's
- (D) Hutiri's

18.

Which person expects the first users of their invention to be wealthy people?

- (A) Allela
- (B) **Matovu**
- (C) Koigi
- (D) Hutiri

19.

Which person grew up in a rural area?

- (A) Allela
- (B) **Matovu**
- (C) Koigi
- (D) Hutiri

20.

Which person's invention was inspired by a relative's impairment?

- (A) **Allela's**
- (B) Matovu's
- (C) Koigi's
- (D) Hutiri's

2. Reading

Reading 2

Read the following text and solve the tasks based solely on the information in it.

QUESTIONS 21–28

Six Degrees of Separation – Big Microsoft Study Supports Small World Theory

The theory of six degrees of separation contends that, because we are all linked by chains of acquaintance, we are just six introductions away from any other person on the planet – including Madonna, the Dalai Lama or the Queen. **(A)** In a world of 6.6 billion people, it does seem hard to believe. But researchers from Microsoft have announced the theory was right – nearly. By studying billions of electronic messages, they worked out that any two strangers are, on average, distanced by 6.6 degrees of separation.

A ‘degree of separation’ is a measure of social distance between people. You are one degree away from everyone you know, two degrees away from everyone they know, and so on. **(B)** The concept was made famous by John Guare’s 1990 play, *Six Degrees of Separation*, but it has its origins in the work done in the ‘60s by Stanley Milgram and Jeffrey Travers. In their oft-cited 1969 study, they put the figure at 6.2. Their finding was based on asking 296 people in Nebraska and Boston to send a letter through acquaintances to a Boston stockbroker. Precisely, the subjects were told to send the letter to an acquaintance who could best advance the letter to the target. However, only 64 of the original 296 letters reached the stockbroker. **(C)** Of those letter chains that were complete, the average number of degrees of separation was 6.2. The high failure rate, though, led some to question the results.

The idea was later taken up again, this time on a global scale, by Columbia University researchers in 2003. More than 24,163 volunteers agreed to try to send an e-mail through acquaintances to one of 18 target persons in 13 countries including a police officer in Australia or a member of the Norwegian army. Only 384 of those 24,163 chains were completed. Of those completed chains, the average number of steps was 4, and using statistical techniques, the researchers estimated that the average length in all of the chains was between five and seven steps. **(D)**

The Microsoft project went further. Researchers at Microsoft studied records of 30 billion electronic conversations among 180 million people in various countries. Eric Horvitz and fellow researcher Jure Leskovec considered two people to be acquaintances if they had sent one another a text message. They looked at the minimum chain lengths it would take to connect 180 billion different pairs of users in the database. They found that the average length was 6.6 hops. Horvitz said: ‘To me, it was astonishing. People have had this suspicion that we are really close. But we are showing on a very large scale that this idea goes beyond folklore.’ But strictly speaking, six degrees of separation might be just a bit off. It’s closer to seven, at least in their study.

https://www.microsoft.com/en-us/research/wp-content/uploads/2016/11/washpost_8_2_2008.pdf

21.

What does the theory of “six degrees of separation” postulate?

- (A)** There are more than six billion people on Earth.
- (B)** People have on average about six close acquaintances.
- (C)** People are not very skilled at introducing themselves to others and tend to separate themselves.
- (D) People are just a few social connections away from anyone in the world.**

22.

Why did some people express their doubts regarding the conclusions of the study conducted by Milgram and Travers?

- (A)** Because the stockbroker was a poorly chosen target.
- (B) Because the majority of the letters were never delivered to the intended recipient.**
- (C)** Because many of the letters that reached the stockbroker were incomplete.
- (D)** Because it turned out that many people who participated in the study had cheated.

23.

The word “advance” in the second paragraph of the text is closest in meaning to _____.

- (A) forward**
- (B)** write
- (C)** reply to
- (D)** describe

24.

Which of the following statements about the study by the Columbia University is true?

- (A)** It involved sending letters by post.
- (B) It involved more than a dozen states worldwide.**
- (C)** It involved more interactions than the Microsoft study.
- (D)** It conclusively proved that the theory of “six degrees of separation” is just a myth.

2. Reading

25.

Which two of the following people were involved as target persons in the Columbia University study?

- I. a member of the police force
- II. a member of the royal family
- III. a stockbroker
- IV. a member of the military

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

26.

When talking about the theory of “six degrees of separation”, Horvitz says that the Microsoft study is “showing on a very large scale that this idea goes beyond folklore”. Which of the following statements best describes what he means?

- (A) **There are a lot of data that indicate the idea is more than just a popular belief.**
- (B) A large-scale study has shown the idea is hardly anything more than a common myth.
- (C) There isn't enough data to prove that this idea is more than just folklore.
- (D) Many people tend to overemphasize the importance of folklore.

27.

Look at the four letters (A) to (D) in the text above. These indicate where the following sentence could be added to the text.

Still, it was an estimate.

Where would the sentence best fit?

- (A)
- (B)
- (C)
- (D)

28.

Which of the following statements best describes the main conclusion of the Microsoft study regarding the theory of “six degrees of separation”?

- (A) The theory by far overestimates the number of acquaintances needed to reach another person on the planet.
- (B) People who put an effort into studying such a ridiculous theory are a bit off.
- (C) **Essentially, the theory is valid, but a more fitting name would be “seven degrees of separation”.**
- (D) It can be shown on a very large scale that most people are linked by exactly six acquaintances to everyone else on the planet.

3. Use of English

Multiple choice cloze

Fill in the numbered gaps in the following short texts with the most suitable word or phrase from the options offered.

QUESTIONS 29–35

AI, Radiology, and the Future of Work

The pessimists say that radiologists, doctors who interpret X-rays to find diagnoses, will be first to be made redundant when the machines take (29). Analysing medical images is a natural fit for “deep learning”, an artificial-intelligence (AI) technique which first attracted attention for its ability to teach computers to recognise objects in pictures. A (30) of medical professionals hope that bringing AI into the clinic will (31) diagnosis faster and cheaper. The machines may even (32) see nuances that humans cannot, e.g to assess how risky a patient’s cancer is simply by looking at a scan.

However, many experts strongly disagree with the pessimists. Although machine learning will (33) change many fields, allowing the rapid analysis of enormous piles of data to uncover details that people might (34), it is not about to make humans redundant. No human is as good at mental arithmetic as a pocket calculator, but that is all the calculator can do. And although deep learning with its pattern-recognition technique is much broader, in the end it is also limited – just a more sophisticated sort of electronic gadget which (35) at one particular mental task but is confused by others. Instead of wondering whether AI can replace a job, it is better to consider whether it could replace humans at a specific task.

adapted from: www.ecocomist.com

29.

- (A) up
- (B) **over**
- (C) in
- (D) away

30.

- (A) **variety**
- (B) numerous
- (C) various
- (D) numbers

31.

- (A) do
- (B) take
- (C) **make**
- (D) help

32.

- (A) able to
- (B) will be able to
- (C) **be able to**
- (D) been able to

33.

- (A) ever
- (B) be
- (C) already
- (D) **indeed**

34.

- (A) overthrow
- (B) **overlook**
- (C) overcome
- (D) overtake

35.

- (A) exceeds
- (B) **excels**
- (C) fails
- (D) expands

3. Use of English

QUESTIONS 36–42

Japanese centenarian population edging towards 70,000

The number of Japanese people aged 100 or older has risen to a record high of almost 70,000 – a cause (36) for celebration and concern over the social and economic challenges posed by the country's rapidly ageing society.

Japan's centenarian population was 69,785 as of September 2019, with women making up 88% of the total. The number is up by more than 2,000 from the previous year, and marks the 48th annual increase (37). The number of centenarians will (38) 100,000 in 2023 and reach 170,000 five years later, according to estimates by the National Institute of Population and Social Security Research.

Experts have attributed the steady increase in the centenarian population (39) regular medical examinations, universal healthcare and, among people over a certain age, a preference for Japan's traditional low-fat diet. But Japan's super-ageing society is expected to put a great (40) on health and welfare services as the country's working population continues to shrink as a result of the low birth rate.

The Prime Minister, who described Japan's demographics as a national crisis, has vowed (41) social security to allow workers aged 65 or older – who account for one in four of the country's 127 million people – to stay in employment (42) the retirement age.

<https://www.theguardian.com/world/2018/sep/14/japanese-centenarian-population-edges-towards-70000>

36.

- (A) either
- (B) **both**
- (C) neither
- (D) each

37.

- (A) **in a row**
- (B) in a pile
- (C) in a column
- (D) in a unit

38.

- (A) extend
- (B) expect
- (C) **exceed**
- (D) expose

39.

- (A) for
- (B) because of
- (C) **to**
- (D) by

40.

- (A) **strain**
- (B) seal
- (C) swing
- (D) slap

41.

- (A) reform
- (B) reformed
- (C) reforming
- (D) **to reform**

42.

- (A) behind
- (B) while
- (C) below
- (D) **beyond**

3. Use of English

Grammar and Vocabulary

Fill in the gaps in the following sentences with the most suitable word or phrase from the options offered.

43.

The Prime Minister is concerned about the unprecedented rise in the unemployment figures.

In the context of the sentence above, the expression “concerned about” is closest in meaning to _____.

- (A) surprised by
- (B) **worried about**
- (C) disappointed by
- (D) unaware of

44.

Josh is somewhat socially inept so he sometimes insults people without meaning to.

In the context of the sentence above, the word “insults” is closest in meaning to _____.

- (A) misjudges
- (B) doesn't recognize
- (C) **offends**
- (D) hugs

45.

A mental health professional can help people overcome grief or deal with difficult situations.

In the context of the sentence above, the word “grief” is closest in meaning to _____.

- (A) disease
- (B) **sorrow**
- (C) insanity
- (D) greed

46.

The journalist's article was a deliberate attack on the prime minister.

In the context of the sentence above, the word “deliberate” is closest in meaning to _____.

- (A) accidental
- (B) hidden
- (C) unexpected
- (D) **intentional**

47.

The children were all trying to figure _____ how to solve the math problem.

- (A) **out**
- (B) on
- (C) up
- (D) down

48.

Freddie Mercury _____ one of the greatest musicians of the 20th century.

- (A) considers to be
- (B) **is considered to be**
- (C) is considered be
- (D) considers have been

49.

Drinking strong coffee often prevents you _____ well.

- (A) to sleep
- (B) of sleeping
- (C) **from sleeping**
- (D) not to sleep

50.

Please talk to me. I want to help you but I can't _____ what is wrong.

- (A) **unless you tell me**
- (B) unless you don't tell me
- (C) if you tell me
- (D) in case you don't tell me

51.

I strongly recommend _____ a lawyer.

- (A) **that you see**
- (B) to see
- (C) that you will see
- (D) have to see

52.

If no one's at home, then she _____ out. Let's wait till she comes back.

- (A) must to go
- (B) must went
- (C) **must have gone**
- (D) must had gone

3. Use of English

Word formation

Use the word in brackets at the end of each sentence to form a new word that fits the gap. **Please write neatly in capital letters. Illegible answers will be considered to be incorrect.** Please note that only words listed in either Cambridge Dictionary (<https://dictionary.cambridge.org/>) or Oxford English Dictionary (<https://en.oxforddictionaries.com/>) or Webster's Dictionary (<https://www.merriam-webster.com/>), which are not marked as archaic or obsolete, will be accepted as correct answers.

Example: The Mona Lisa is one of the most _____ paintings in the world. (FAME)

F A M O U S

53.

The article describes the dangers of the rapid population **growth** that has been observed in recent years. (GROW)

54.

I did not believe him because his explanation was very **unconvincing**. (CONVINCE)

55.

Her mood suddenly **darkened** when she heard the bad news. (DARK)

56.

A strike by employees would be extremely **costly** to the company. (COST)

57.

Young **offenders** are usually sent to a juvenile correctional institution. (OFFENCE)

58.

Few diseases are as highly **infectious** as the flu. (INFECTION)

59.

There was a fire at school, but **luckily**, no one got hurt. (LUCK)

60.

She felt physical **exhaustion** and therefore wanted to give up the race. (EXHAUST)

END OF THE TEST

Počkejte na pokyny zadávajícího. / Počkajte na pokyn administrátora.