ispitni centar PRAVA MJERA ZNANJA DRŽAVNO DRŽAVNO TAKMIČENJE 2015. SREDNJA ŠKOLA

ENGLESKI JEZIK

Autorka/autor testa

Recenzentkinja/recenzent

Podgorica, godine

Test iz engleskog jezika sastoji se od □etiri dijela.

	Vrijeme rješavanja	Broj bodova
Slušanje	oko 15 minuta	16
□itanje	25 minuta	24
Leksika /gramatika	30 minuta	30
Pisanje	50 minuta	30

Vrijeme rješavanja testa je **120 minuta**.

Dozvoljeni pribor su grafitna olovka i gumica, plava ili crna hemijska olovka. Priznaju se samo odgovori pisani **hemijskom olovkom**. Ukoliko pogriješite, prekri i odgovorite ponovo. Za vrijeme rada na testu **nije dozvoljeno korišćenje rječnika**.

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□elimo vam puno uspjeha!

LISTENING COMPREHENSION

Listen to an excerpt from an interview Patricia Arquette and Ethane Hawke, co-stars from the movie "Boyhood", have given to Terry Gross from Fresh Air. For sentences 1-8, decide if each statement is TRUE or FALSE by putting a tick ($\sqrt{}$) in the appropriate box.

TERRY GROSS, HOST:

This is FRESH AIR. I'm Terry Gross. The film "Boyhood" won three awards at the Golden Globes Sunday night - best film drama; best film director, Richard Linklater; and best supporting actress in a drama, Patricia Arquette. Arquette and her co-star Ethan Hawke are my guests. They play the divorced parents of two children. There's never been a film like "Boyhood," a fiction film about a family that takes place over the course of 12 years and was shot over the course of 12 years, filming several days each year. As the actors age, we see the characters age. It's especially dramatic to watch the children. The youngest, Mason Jr., played by Ellar Coltrane, is a 7-year-old first-grader when the movie begins. He's 19 and beginning college when the movie concludes.

"Boyhood" follows the mother as she does her best to raise her children during periods she's single, remarried and re-divorced, the father, as he develops his weekend relationship with his children and tries to figure out his own identity as an adult, and it follows the two siblings as they grow up.

Ethan Hawke has made several films with Richard Linklater, including "Before Sunrise," "Before Sunset" and "Before Midnight." He was a child actor who first got really noticed in the 1989 film "Dead Poets Society." Patricia Arquette is from an acting family. She costarred in the 1993 cult film "True Romance," recently starred in the TV series "Medium," had a recurring role on "Boardwalk Empire" and stars in the new series, "CSI: Cyber."

Ethan Hawke, Patricia Arquette, welcome to FRESH AIR. Congratulations on your performance in this film. It's such a special movie, so thank you for being here.

PATRICIA ARQUETTE: Thank you for having us.

ETHAN HAWKE: Yeah.

GROSS: As a viewer, it was an amazing experience for me to watch every character every main character - in this movie age in each scene, you know because by the time the movie's over, you're each 12 years older. What was the experience like for you of watching the completed film?

ARQUETTE: It was incredible on many levels. I'd never seen the scenes that Ethan was in with the kids and the kids were in without my character, so that was one whole thing - but also our own real lives. We had 400 people on the crew. We worked with each other every year. And so while I was watching the movie, maybe my character was getting remarried, but I also had the memory of someone on the crew or someone in the cast

getting divorced that year or having a baby that year. So there's multiple levels of watching it.

But you know, old people always say to you your whole life, well, enjoy this time, it goes really fast, it goes really fast. And in watching the movie, I think you see the rapid lifecycle of humans, and it really does go fast.

HAWKE: It's strange. It was hard not to think about - when Rick first told me about this idea, you know, he was talking about how there's this lie in every film - even the best ones - about childhood, this little, tiny lie you have to accept that somehow, some enlightenment moment happens in one moment, rather than being in a series of moments when we come of age. You know, they may come to feel like one, but he was saying, wouldn't it be amazing to make a movie where we actually just captured all the little moments? The feeling of growing up could actually be tactile.

And this conversation is now 13 and a half years ago or something, and it feels like yesterday. I know the children look so different, and like I gather from reviews, Patricia and I look different. But I feel like the same person, you know? And even as I watched the movie - I often get asked, what's it like to watch yourself age? For me, the remarkable thing about the movie is that I watch people maturing. That's so interesting that I actually didn't get really hung up own face cracking or anything like that.

ARQUETTE: Also, as an actress, for me, I mean, I think there's such a pressure in the world for women to look a certain way, especially if you have success at a certain moment in your life in this ingenue age group, that you're supposed to hold on to that. And I really wanted to move away from that status as quickly as possible.

GROSS: I just want to say, I am just so grateful - like, in the role in the movie, your weight fluctuates. Sometimes you weigh more, sometimes you weigh less, like in real life people do. And as you get a little older in the movie, you don't have plastic surgery when there's so much pressure on actresses to do that. As somebody who's not an actress, I don't want to feel like a - that my aging face is somehow hideous because the new norm is cosmetic surgery, and that if you don't have it, you're going to look peculiar or ugly. Like, why would we want that to be the norm?

ARQUETTE: I don't know...

HAWKE: Because we're afraid...

ARQUETTE: ...Like comfort distortion of some sort. I was joking with Rick towards the end, you better finish up your movie because I need to get the facelift.

(LAUGHTER)

ARQUETTE: But I don't know. It's a very strange thing. You know, if you look at paintings throughout history of female beauty, the one that we're creating right now is a really weird one.

(LAUGHTER)

GROSS: That's true.

		True	False
1. The film "Boyhood" was shot intermittee each year, over the course of 12 year	ently, for a few months 's.		\checkmark
2. Patricia Arquette plays a role of a sing the whole movie.	gle mother throughout		\checkmark
3. Ethan Hawke made several films with ("Before Sunset", "Before Sunrise" etc him really noticed.	Richard Linklater .) as a child, which got		\checkmark
4. Patricia did not see all the scenes unt completed.	il the movie had been	\checkmark	
5. Ethan Hawke and Richard Linklater fir making the movie about childhood 1	st discussed the idea of 3 and a half years ago.	\checkmark	
6. Richard Linklater wanted to capture the enlightening moment when we come	hat one, exact, e of age.		\checkmark
7. The most fascinating thing for Ethan w movie was watching himself age.	hile watching the		\checkmark
8. Patricia believes that nowadays the is distorted and odd.	mage of female beauty	\checkmark	

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READING COMPREHENSION

A. Read the text carefully. Then read the questions and choose the correct answer (A-D). Write your answers in the grid provided below.

A GENIUS EXPLAINS

(Adapted from the Guardian)

Daniel Tammet is an autistic savant. He can perform mind-boggling mathematical calculations at breakneck speeds. But unlike other savants, Tammet can describe how he does it. He speaks seven languages and is even devising his own language. Now scientists are asking whether his exceptional abilities are the key to unlock the secrets of autism.

Daniel Tammet is talking. As he talks, he studies my shirt and counts the stitches. Ever since the age of three, when he suffered an epileptic fit, Tammet has been obsessed with counting. Now he is 26, and a mathematical genius who can figure out cube roots quicker than a calculator and recall pi to 22,514 decimal places. He also happens to be autistic, which is why he can't drive a car or tell right from left. He lives with extraordinary ability and disability.

Tammet is calculating 377 multiplied by 795. Actually, he isn't "calculating": there is nothing conscious about what he is doing. He arrives at the answer instantly. Since his epileptic fit, he has been able to see numbers as shapes, colours and textures. The number two, for instance, is a motion, and five is a thunder. "When I multiply numbers together, I see two shapes. The image starts to change and evolve, and a third shape emerges. That's the answer. It's mental imagery. It's like maths without having to think."



Tammet is a "savant", an individual with an astonishing, extraordinary mental ability. An estimated 10% of the autistic population – and an estimated 1% of the non-autistic population – have savant abilities, but no one knows exactly why. Professor Allan Snyder, from the Centre for the Mind at the Australian National University in Canberra, explains why Tammet is of particular, and international, scientific interest. "Savants can't usually tell us how they do what they do," says Snyder. "It just comes to them. Daniel can. He describes what he sees in his head. That's why he's exciting. He could be the Rosetta Stone." There are many theories about savants. Snyder, for instance, believes that we all possess the savant's extraordinary abilities – it is just a question of us learning how to access them. "Savants have usually had some kind of brain damage. And it's that brain damage which can create the savant. I think that it's possible for a perfectly normal person to have access to these abilities, so working with Daniel could be very instructive." Scans of the brains of autistic savants suggest that the right hemisphere might be compensating for damage in the left hemisphere. While many savants struggle with language and comprehension (skills associated primarily with the left hemisphere), they often have amazing skills in mathematics and memory (primarily right hemisphere skills).

Tammet is softly spoken, and shy about making eye contact, which makes him seem younger than he is. He lives on the Kent coast, but never goes near the beach there are too many pebbles to count. The thought of a mathematical problem with no solution makes him feel uncomfortable. Trips to the supermarket are always difficult. "There's too much mental stimulus. I have to look at every shape and texture. Every price and every arrangement of fruit and vegetables. So instead of thinking, 'What cheese do I want this week?', I'm just really uncomfortable."

Autistic savants have displayed a wide range of talents, from reciting all nine volumes of Grove's Dictionary of Music to measuring exact distances with the naked eye. The blind American savant Leslie Lemke played Tchaikovsky's Piano Concerto No1, after he heard it for the first time. And the British savant Stephen Wiltshire was able to draw a highly accurate map of the London skyline from memory after a single helicopter trip over the city. Even so, Tammet could still turn out to be the more significant.

Savant syndrome is a condition in which a person demonstrates profound and prodigious capacities or abilities far in excess of what would be considered normal. Most autistic savants have a single special skill while others have multiple skills. Usually these abilities are concrete, non-symbolic, right hemisphere skills as opposed to left hemisphere skills that tend to be more sequential, logical, and symbolic.

- 1. Why is Daniel Tammet so special in the world of autism?
- a) Because he is a mathematical genius.
- b) Because he is a polyglot who is creating a new language.
- c) Because he is one of the most studied cases of autism.
- d) Because he can articulately describe his thought process.
- 2. What is Daniel's memory like?
- a) He has exceptional memory.
- b) He has problems focusing due to too many mental stimuli.
- c) We don't know.
- d) He has weak memory unlike most savants.

3. How does Daniel perform mathematical calculations?

- a) His thinking is synesthetic, i.e. he relies on mixing senses.
- b) He usually employs visualization to support his memory.
- c) The epileptic fit has rendered his mathematical abilities extraordinary.

d) He knows the results from memory.

- 4. What does Professor Snyder believe?
- a) That people with brain damage become autistic savants.
- b) That autistic savants can explain what happens in their head.
- c) That all people have the potential to develop these amazing abilities.

d) That autistic savants are Rosetta Stones as they can give us an insight into how they perform their skill.

- 5. What are the language skills of most savants like?
- a) They usually speak several languages.
- b) Their language skills are very limited.
- c) They are not very communicative as they are usually shy.
- d) Their listening and reading comprehension is to be envious of.
- 6. What is Daniel's social life like?
- a) He avoids going out as he is compelled to notice details.
- b) Unlike many other savants, he is quite outgoing.
- c) His behaviour can be labelled as anti-social.
- d) He is uncomfortable around other people.
- 7. What is the meaning of the word <u>profound</u> used in the last paragraph?
- a) Wise and serious.
- b) Miraculous.
- c) Deep and great.
- d) Professional.

1	2	3	4	5	6	7
D	Α	Α	С	В	Α	С

B. Match the headings below (A-K) to the corresponding parts of the text (1-10). One heading is extra. Write your answers in the grid provided below.

HOW THE UNIVERSE CAME TO BE

by Denise Chow, SPACE.com Staff Writer (adapted)

The broadly accepted theory for the origin and evolution of our universe is the Big Bang model. Here is a breakdown of the Big Bang to now in 10 easy-to-understand steps.

1. ______ The Big Bang was not an explosion in space, as the theory's name might suggest. Instead, it was the appearance of space everywhere in the universe, researchers have said. According to the Big Bang theory, the universe was born as a very hot, very dense, single point in space. Cosmologists are unsure what happened before this moment, but with sophisticated space missions, ground-based telescopes and complicated calculations, scientists have been working to paint a clearer picture of the early universe and its formation. In 2001, NASA launched the WMAP mission to study the conditions as they existed in the early universe by measuring radiation from the cosmic microwave background. Among other discoveries, WMAP was able to determine the age of the universe — about 13.7 billion years old.

2. _____ When the universe was very young — something like a hundredth of a billionth of a trillionth of a trillionth of a second (whew!) — it underwent an amazing growth. During this burst of expansion, which is known as inflation, the universe grew exponentially and doubled in size at least 90 times. "The universe was expanding, and as it expanded, it got cooler and less dense," David Spergel, a theoretical astrophysicist at Princeton University in Princeton, N.J., told SPACE.com. After inflation, the universe continued to grow, but at a slower rate. As space expanded, the universe cooled and matter formed.

3. ______ Light chemical elements were created within the first three minutes of the universe's formation. As the universe expanded, temperatures cooled and protons and neutrons collided to make deuterium, which is an isotope of hydrogen. Much of this deuterium combined to make helium. For the first 380,000 years after the Big Bang, however, the intense heat from the universe's creation made it essentially too hot for light to shine. Atoms crashed together with enough force to break up into a dense, difficult to see through plasma of protons, neutrons and electrons that scattered light like fog.

4. ______ About 380,000 years after the Big Bang, matter cooled enough for electrons to combine with nuclei to form neutral atoms. This phase is known as "recombination," and the absorption of free electrons caused the universe to become transparent. The light was unleashed for the first time and it is still detectable today in the form of radiation from the cosmic microwave background.

5. _____ Roughly 400 million years after the Big Bang, the universe began to come out of the dark. This period in the universe's evolution is called the age of re-ionization. During this time, clumps of gas collapsed enough to form the very first stars and galaxies. The emitted ultraviolet light from these energetic events cleared out and destroyed most of the surrounding neutral hydrogen gas. The process of re-ionization, plus the clearing of foggy hydrogen gas, caused the universe to become transparent to ultraviolet light for the first time.

6. ______ Astronomers comb the universe looking for the most far-flung and oldest galaxies to help them understand the properties of the early universe. Similarly, by studying the cosmic microwave background, astronomers can work backwards to piece together the events that came before. Data from older missions like WMAP and the Cosmic Background Explorer (COBE), which launched in 1989, and missions still in operation, like the Hubble Space Telescope, which launched in 1990, all help scientists try to solve the most enduring mysteries and answer the most debated questions in cosmology.

7. _____ The sun is estimated to have been born a little after 9 billion years after the Big Bang, making it about 4.6 billion years old. According to current estimates, the sun is one of more than 100 billion stars in our Milky Way galaxy alone, and orbits roughly 25,000 light-years from the galactic core. Many scientists think the sun was formed from a giant, rotating cloud of gas and dust known as the solar nebula. As gravity caused the nebula to collapse, it spun faster and flattened into a disk. During this phase, most of the material was pulled toward the center to form the sun.

8. _____ In the 1960s and 1970s, astronomers began thinking that there might be more mass in the universe than what is visible. Vera Rubin, an astronomer at the Carnegie Institution of Washington, observed the speeds of stars at various locations in galaxies. Basic Newtonian physics implies that stars on the outskirts of a galaxy would orbit more slowly than stars at the center, but Rubin found no difference in the velocities of stars farther out. In fact, she found that all stars in a galaxy seem to circle the center at more or less the same speed. This mysterious and undetectable mass became known as dark matter, which is inferred because of the gravitational pull it exerts on regular matter.

9. _____ In the 1920s, astronomer Edwin Hubble made a revolutionary discovery about the universe. Using a newly constructed telescope at the Mount Wilson Observatory in Los Angeles, Hubble observed that the universe is not static, but rather is growing. Decades later, in 1998, the prolific space telescope named after the famous astronomer, the Hubble Space Telescope, studied very distant supernovas and found that, a long time ago, the universe was expanding more slowly than it is today. This discovery was surprising because it was long thought that the gravity of matter in the universe would slow its expansion, or even cause it to contract. Dark energy is thought to be the strange force that is pulling the cosmos apart at ever-increasing speeds, but it remains undetected and shrouded in mystery.

10. _____ While much has been discovered about the creation and evolution of the universe, there are enduring questions that remain unanswered. Dark matter and dark energy remain two of the biggest mysteries, but cosmologists continue to probe the universe in hopes of better understanding how it all began.

- A. Still a Lot to Unravel
- B. Let There Be Light
- C. A Miniscule Past
- D. An Inflating Balloon
- E. More Stars and More Galaxies
- F. Invisible Stuff in the Universe
- G. Birth of Our Star
- H. Pervading Blackness
- I. The Universe's First Growth Spurt
- J. Emerging from the Cosmic Dark Ages
- K. Race for Space

1	2	3	4	5	6	7	8	9	10
С	Ι	Η	В	J	Ε	G	F	D	Α

USE OF ENGLISH

A. Complete the text using the correct form of the verbs in brackets:

My family came live in the United Kingdom when I was seven years old. Although we now are very comfortable, at first we had a difficult time adapting to life here. We had thought that everybody in the EU was wealthy – imagine how surprised we were when we found out that it was hard for many people, my father included, to make ends meet.

My father had worked as a doctor in Hungary before we came here 22 years ago. Here he couldn't work as a doctor straight away as he **HAD NOT PASSED** (not pass) the state exams yet. While he WAS STUDYING (study) for the doctor examinations, he worked in the medical laboratory to support his family. **HAVING PASSED** (pass) the exams within two years, he established himself in practice with a local doctor. He had a long and successful career. By the time he retired, he **HAD PRACTISED** (practise) medicine for 25 years. During his career, he earned respect of his peers and the devotion of his patients, as well as the love of the poor immigrants to whom he offered his services free of charge.

Next year, my family and I **WILL HAVE BEEN** (be) in this country for 30 years. We faced some difficulties when we first came to this country because we hadn't expected things to be as difficult as they in fact were. We didn't know what we now know: that we **HAVE SUCCEEDED/WOULD SUCCEED/WERE GOING TO SUCCEED** (succeed) beyond our wildest dreams.

B. Read the text and choose the correct answer (A, B, C or D) to fill in the gap. Write your answers in the grid provided below.



Nikola Tesla - The Forgotten Genius

The story about Nikola Tesla is the story of a genius who was largely disrespected and abused by other scientists and inventors -- many of whom stole his ideas and took credit for his discoveries. But how did this happen?

An eccentric genius, Tesla had 3) friends and remained reclusive. He never had a home in America, choosing instead to live in hotels. During the final few decades of his life he withdrew in a New York hotel, only 4) interviews and making annual public appearances on his birthdays. At these press conferences Tesla proposed future inventions, but his 5) were frequently distorted by the popular press. After Tesla's death, in 1943, the Federal Bureau of Investigation took note of Tesla's proposals for advanced weapons systems and searched his papers for information about reports of his death ray machine as world conflict was 6)

	Α	В	С	D
1.	infinite	minute	tiny	smallest
2.	meticulous	approximately	painstaking	diligent
3.	few	little	none	some
4 .	attending	conducting	requesting	granting
5.	publications	fablies	accounts	recounts
6.	glooming	impending	gathering	portenting

1	2	3	4	5	6
В	Α	Α	D	С	В

C. For questions 1-5 read the text below and think of the word which best fits each space. Use only one word in each space. Read the text through to check that it makes sense with the gaps filled.

Dirty Britain

Before the grass has thickened on the roadside verges and leaves have started growing on the trees is a perfect time to look around and see just how dirty Britain has become. The pavements are stained with chewing gum that has been spat out and the **GUTTERS** are full of discarded fast food cartons. Years ago I remember travelling abroad and being saddened by the plastic bags, discarded bottles and soiled nappies at the edge of every road. Nowadays, Britain seems to look at least as bad. What has gone wrong? The problem is that the **RUBBISH** created by our increasingly mobile lives lasts a lot longer than before. If it is not cleared up and properly thrown away, it stays in the undergrowth

Firstly, it is **ESTIMATED** that 10 billion plastic bags have been given to shoppers. These will take anything from 100 to 1,000 years to **DECAY**. However, it is not as if there is no solution to this. A few years ago, the Irish government introduced a tax on non-recyclable carrier bags and in three months reduced their use by 90%. When he was a minister, Michael Meacher attempted to introduce a similar arrangement in Britain. The plastics industry protested, of course. Nonetheless, they need not have bothered; the idea was killed before it could **DRAW** breath, leaving supermarkets free to give away plastic bags.

for years; a semi-permanent reminder of what a tatty little country we have now.

D. Fill in the blanks with the correct form of the words in brackets, positive or negative.

A new survey of North American art museums' financial information confirms once more that if they had to operate like for-profit businesses and rely on a paying public, they almost certainly would be sunk.

The average art museum in North America saw 279,351 visitors pass through its doors in a year, with total (1) **ATTENDANCE** coming to more than 67 million.

But they weren't able -- or inclined -- to reach deeply into the pockets of all that foot traffic. When it came to earning money by selling (2) **ADMISSION** tickets, parking spaces, (3) **REFRESHMENTS** and gift shop merchandise to visitors or by renting facilities, the survey results (4) **INDISPUTABLY** suggest that art museums simply are not in step with the capitalist imperative. These findings about museums' (5) **INABILITY** to tap visitors' wallets may get a rise from those who bemoan the sometimes considerable price at certain big city museums.

1	ATTEND	ATTENDANCE
2	ADMIT	ADMISSION
3	REFRESH	REFRESHMENTS
4	DISPUTE	INDISPUTABLY
5	ABLE	INABILITY

E. For the following sentences think of <u>one word only</u> which can be used appropriately in all three sentences. Here is an example (0).

0. Some of the tourists are hoping to get compensation for the poor state of the hotel, and I think they have a very **strong** case.

There's no point in trying to wade across the river, the current is far too <u>strong</u>. If you are asking me who should get the job, I'm afraid I don't have any <u>strong</u> views either way.

 The police have CHARGED two men with robbery and they will appear in court tomorrow.
 When he realized how late it was, George CHARGED out of the house and ran

down the road to catch the bus.

The hotel agreed that it was their mistake and said that I wouldn't be **CHARGED** for the phone calls that appeared on my bill.

- The change opens up a WEALTH of exciting new opportunities.
 People acquired WEALTH in the form of goods or animals.
 They used some of their WEALTH to build magnificent town halls.
- The characters in her novels **BEAR** a strong resemblance to those in the Harry Potter series.
 When you prepare your CV, **BEAR** in mind that it should be informative.

I can't **BEAR** the thought of taking on any more responsibility!

F. Transform the following sentences by using the given word(s) so that they have a similar meaning. You can use no more than <u>five</u> words including the given word.

 Sheldon has never trusted me with his secrets. Sheldon HAS NEVER CONFIDED IN me. 	CONFIDED
2. As soon as Rachel got home, she realized she'd left her bag in the shop. No sooner HAD RACHEL GOT HOME THAN she realized she'd left her bag in the	HAD e shop.
 "Why don't you go to Lisbon?" Penny asked. Penny SUGGESTED (THAT) I GO/SHOULD GO/WENT to Lisbon. 	SUGGESTED
4. Many people believe Tarkovsky was the best Russian director. Tarkovsky IS BELIEVED TO HAVE BEEN the best Russian director.	BELIEVED
5. I regret taking up smoking.	WISH

I WISH I HAD NOT TAKEN up smoking.

WRITING

Have you ever read a book or seen a movie with a character who reminded you of yourself? Maybe the character had the same type of family as yours, was the same age as you or played the same sport as you. Perhaps the character had a personality similar to yours. Select a fictional character that is similar to you in some way. <u>Write an essay of 150 to 250 words comparing and contrasting the character with yourself</u>. Use specific examples in your essay to illustrate the similarities and differences.

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