

I OLIMPIADA JĘZYKA ANGIELSKIEGO Z ELEMENTAMI JĘZYKA TECHNICZNEGO

LANGTECH

ETAP FINAŁOWY

9 listopada 2019

wypełnia uczeń

IMIĘ I NAZWISKO	<hr/>
NAZWA SZKOŁY	<hr/> <hr/>

wypełnia nauczyciel

ZADANIE	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	RAZEM
PUNKTY	5	5	10	5	10	10	15	10	15	15	100
ILOŚĆ											

Podpis sprawdzającego: _____

Droga uczennico! Drogi uczniu!

Arkusz, który masz przed sobą, zawiera 10 zadań. Przeczytaj uważnie polecenia. Pamiętaj, żeby pisać czytelnie (długopisem lub piórem). Możesz pisać drukowanymi literami. Nie używaj korektora ani długopisu zmywalnego. Odpowiedzi nanieś w miejsca do tego przeznaczone.

Pamiętaj, że brak wyboru odpowiedzi lub zaznaczenie większej liczby odpowiedzi będzie traktowane jako błędna odpowiedź.

Jeśli jeszcze nie wyłączyłeś/ wyłączyłaś telefonu komórkowego, zrób to teraz. Czas przeznaczony na rozwiązanie testu: 135 minut.

Życzymy Ci powodzenia,

GOOD LUCK!

Komitet Organizacyjny Olimpiady



Task 1. Listening comprehension 1

____ / 5 p.

Listen to the recording and mark the sentences below as true (T) or false (F) Write your answers in the box. You will hear the recording twice.

	T/F
1. The speaker starts the talk with two examples of helices found in nature.	1.
2. The main advantage of a spiral staircase is its strength.	2.
3. DNA contains the genetic information for most living things.	3.
4. A mirror image of a helix can appear to change direction.	4.
5. Helices are much more common in manufactured objects than in natural ones.	5.

Task 2. Listening comprehension 2

____ / 5 p.

Listen to the recording and choose the best answer. Write your answers (a/ b/ c) in the box. You will hear the recording twice.

1. Which fields of employment are women under-represented in, according to the report:

- a. science, engineering and tech
- b. science, law and accounting
- c. construction, tech and law

4. What reasons does one of the speakers give for young girls being more comfortable with using technology?

- a. they are more confident than older women
- b. they are used to using computers as part of their everyday life
- c. they have grown up in a less sexist environment

2. What percentage of companies raising money in Silicon Valley that Orange Labs SF looked at were led by women?

- a. 43%
- b. 4.3%
- c. 3%

5. What initiatives for helping women who want to work in the technology industry does one of the speakers mention in the recording?

- a. she doesn't mention any initiatives for helping women
- b. advice and help with applying for funding
- c. hosting free programming language workshops, and providing childcare

3. Why does one of the women feel that female IT entrepreneurs often go unnoticed?

- a. because they tend to be more modest about their achievements.
- b. because they tend not to opt for venture fundraising
- c. because they prefer to keep a low profile

1.		2.		3.		4.		5.	
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Task 3. Reading comprehension

____ / 10 p

LIFE ON MARS

- A** A new study published in the journal *Science* shows definitive evidence of organic matter on the surface of Mars. The data was collected by NASA's nuclear-powered rover Curiosity. It confirms earlier findings that the Red Planet once contained carbon-based compounds. These compounds – also called organic molecules – are essential ingredients for life as scientists understand it. The organic molecules were found in Mars's Gale Crater, a large area that may have been a watery lake over three billion years ago. The rover encountered traces of the molecule in rocks extracted from the area. The rocks also contain sulfur, which scientists speculate helped preserve the organics even when the rocks were exposed to the harsh radiation on the surface of the planet.
- B** Scientists are quick to state that the presence of these organic molecules is not sufficient evidence for ancient life on Mars, as the molecules could have been formed by non-living processes. But it's still one of the most astonishing discoveries, which could lead to future revelations. Especially when one considers the other startling find that Curiosity uncovered around five years ago. The rover analyses the air around it periodically, and in 2014 it found the air contained another of the most basic organic molecules and a key ingredient of natural gas: methane. One of the characteristics of methane is that it only survives a few hundred years. This means that something, somewhere on Mars, is replenishing the supply. According to NASA, Mars emits thousands of tons of methane at a time. The level of methane

rises and falls at seasonal intervals in the year, almost as if the planet is breathing it.

- C** NASA suspects the methane comes from deep under the surface of the planet. The variations in temperature on the surface of Mars cause the molecule to flow upwards at higher or lower levels. For example, in the Martian winter the gas could get trapped in underground icy crystals. These crystals, called clathrates, melt in the summer and release the gas. However, the source of the methane is still a complete mystery.
- D** The world of astrobiology considers both of these studies as historical milestones. According to this information, Mars is not a dead planet. On the contrary, it is quite active and may be changing and becoming more habitable. Of course, this means further research is necessary. Scientists say they need to send new equipment to Mars, equipment that can measure the air and soil with more precision. There are already missions underway. The European Space Agency's ExoMars ship lands in 2020 and will be able to drill into the ground on Mars to analyse what it finds. Additionally, NASA is sending another Mars Rover in the same year to collect samples of Martian soil and return them to Earth. The possibility of life on Mars has fascinated humans for generations. It has been the subject of endless science-fiction novels and films. Are we alone in the universe or have there been other life forms within our Solar System? If the current missions to the Red Planet continue, it looks as if we may discover the answer very soon.

a) Read the text and mark the sentences below as T (true) or F (false). Write your answers in the box.

	T/F
1. This is not the first study to suggest that life existed on Mars in the past.	1.
2. A scientific vehicle found very small elements of an organic molecule in water extracted from the planet.	2.
3. It is believed that this conclusively proves that there was once life on the planet.	3.
4. Mars can be said to have a winter and a summer.	4.
5. There are at least two more scientific expeditions heading to Mars.	5.

b) Read the text and find the words that have the same meaning as the definitions 6-10. Write your answers in the box.

6. a pale yellow substance that produces a strong unpleasant smell when it burns and is used in medicine and industry (par. A)	6.
7. extremely unusual and surprising (par. B)	7.
8. making something full again by replacing what has been used (par. B)	8.
9. to let somebody/something come out of a place where they have been kept or trapped (par. C)	9.
10. very important stages or events in the development of something (par. D)	10.

Task 4. Working with words 1

____ / 5 p.

Complete each of the sentences with an appropriate preposition. Write your answers in the box.

1.	1. It sometimes seems that people in the developed world are indifferent ___ the plight of those in poorer ones.
2.	2. Volcanologists say the earth might be due ___ another major volcanic eruption.
3.	3. Many artists strive ___ perfection and thus end up frustrated.
4.	4. The party finally broke ___ at 3 am.
5.	5. You can't stay at our place because we are having our living room done ___.

Task 5. Working with words 2

____ / 10 p.

Read the sentences and fill in the gaps with one of the words below. There are five extra words.

tranquil	domestic	well	proffer	punters
scenic	domesticated	seemingly	shred	inform
pristine	jaunt	pencilled	ward	abreast

1.	1. This diagram illustrates how solar energy is used to provide hot water for ___ use.
2.	2. There isn't a ___ of independent scientific evidence that these experimental programmes work.
3.	3. Some scientists ___ the view that predatory birds were a deterrent in the insect invasion.
4.	4. The government's latest five-year plan has ambitiously ___ in nearly €500 billion in infrastructure projects.
5.	5. This scientific programme keeps you ___ of what's going on in science and technology around the globe.
6.	6. In the planting season the countryside is not at all ___ as it is buzzing with activity.
7.	7. How about a/an ___ to Las Vegas this weekend? We haven't been there for ages.
8.	8. As a result of the invention, Wildwings, an independent travel agency, have been taking deposits from ___ eager for a place in the stars.
9.	9. In the past, the prickly plant, nailed to the barn doors was used to ___ off witches and evil.
10.	10. This car is in ___ condition except for these distinctive scratches here in the hood.

Task 8. Transformations

_____ / 10 p.

For each sentence below write a new sentence as similar in meaning as possible. The words in capitals should be used in your sentences but must not be altered in any way. You must use between TWO and SIX words, including the word given.

1.	Let me know if you prefer me to write on the board rather than just speaking. Let me know if you _____ whether I write on the board or just speak.	HAVE
2.	He bought the book online in spite of the poor reviews it was given. He bought the book online _____ it poor reviews.	EVEN
3.	The meeting dragged on for hours and the managers argued fiercely. Not _____ for hours, but the managers also argued fiercely.	ONLY
4.	Creating an original piece of art requires a lot of work. A _____ to create an original piece of art.	DEAL
5.	Picasso's peers weren't surprised by his success. The fact that Picasso succeeded _____ his peers.	CAME
6.	It seems as if we misunderstood what the aims of the course were. There seems _____ what the aims of the course were.	BEEN
7.	We've talked a lot about Peter's description of what happened that day and I'm sure he wasn't lying. We've talked a lot about Peter's description of what happened that day and he _____ - _____ truth.	MUST
8.	Paul made a common mistake and is now deep in credit card debt . Paul _____ of credit card debt.	TRAP
9.	Like many students, Joe would find it very difficult to pay for everything he needs if his parents didn't help him. Like many students, Joe would have great _____ the help of his parents.	ENDS
10.	'I promise I will never tell anyone about the missing files,' said Jenny. Jenny _____ never tell anyone about the missing files.	WORD

Task 9. Technical vocabulary PART A.

_____ / 15 p.

Complete the sentences with the correct technical words. The first letter of each word has already been given. The number of letters should be the same as the number of spaces provided for each word. Write your answers in the box.

- A straight line that goes from one side of a circle to the other side and through the centre, or the length of this line is called a **d**_____.
- Width, depth and height are **d**_____.
- The lake reaches a maximum **d**_____ of 292 meters.
- It is difficult to get precise and **a**_____ figures on population numbers.
- SI units are the standard units of **m**_____ used all over the world.
- The **v**_____ line on the graph represents the time taken, and the horizontal line represents the distance travelled.
- The elevated concentration of CO₂ can be observed only within a short time **s**_____.
- The **e**_____ walls of the castle are beginning to crumble and need renovation.
- The towers are inclined, from four to ten feet out of **p**_____.
- Parallel lines become **p**_____ when one line is rotated by 90°.
- If we directly join any two corners (called "vertices") which are not already joined by an edge, we get a **d**_____.
- A**_____ angles share a vertex and a side but they don't overlap.
- If two things such as lines or roads **i**_____, they go across each other at a particular point.
- The lake is 250km in **c**_____ so it will take you a lot of time to go around it.
- The roof beams were 50 square centimetres in **c**_____.

1.		4.		7.		10.		13.	
2.		5.		8.		11.		14.	
3.		6.		9.		12.		15.	

Task 10. Technical vocabulary PART B

_____ / 15 p.

Choose the correct option: a, b, or c. Write your answers in the box.

0	c	0. The swimming pool is 2 meters _____. a) wide b) high c) deep
1.		1. Is the drawing made ____ scale? a) on b) to c) by
2.		2. The ____ length of the truck is 13.6 meters. a) full b) total c) overall
3.		3. The maximum amount of energy an electrical grid can supply to users is called its _____. a) capacity b) efficiency c) consumption
4.		4. The quality _____ team in the plant make sure that all procedures meet the required standards. a) control b) assurance c) inspection
5.		5. A drawing that shows parts of a machine slightly separated by distance is called an _____ view. a) exploded b) exposed c) external
6.		6. The position of the column was _____ accurately by the site engineer. a) measured out b) marked up c) set out
7.		7. The bore of a pipe is its _____. a) inside diameter b) outside diameter c) external dimension
8.		8. The _____ fit means that a component of a machine which goes through another can move or turn freely. a) expansion b) clearance c) interference
9.		9. If the difference between two measurements is minimal, we say it's _____. a) negligent b) rounded down c) negligible
10.		10. How fast can the car go? What is its ____ speed? a) top b) best c) greatest
11.		11. This _____ drawing shows a simplified view of the air duct network in this building. a) scheme b) schematic c) diagram
12.		12. Any product that is ____ tolerance is automatically rejected by the controllers. a) out of b) without c) beyond
13.		13. The highest point of this bridge is its top _____. a) vertex b) extremity c) tower
14.		14. These two lines run parallel ____ each other, so the distance between them is the same. a) to b) by c) with
15.		15. Solar panels when _____ to sunlight, transform it into electric power. a) directed b) placed c) exposed

THANK YOU