

Written part of JA001 maximum score – 65 points

Task 1 – 10 points

Listening to 3-5minute recording, completing answers (words or phrases) to 10 questions

Task 2 – 8 p.

Filling in gaps in the text with individual words

Task 3 – 5 p.

Forming questions about underlined information in a sentence

Task 4 – 2 p.

Completing sentences with correct connector

Task 5 – 5 p.

Word formation – completing a sentence with correct form of a word

Task 6 – 5 p.

Sentence transformations

Task 7 – 7 p.

Reading – identifying synonyms in a text

Task 8 – 7 p.

Completing a text with parts of sentences

Task 9 – 6 p.

Multiple choice – choosing the right reference word

Task 10 – 10 p.

Writing an academic email

Task 2, 7, 8 focus on English for Specific Purposes, i.e. the topics of texts are different for different fields of study (biology, chemistry, mathematics, physics, geography, and geology) but the form of the task is identical

SAMPLE TASKS

Task 1 listening (English for academic purposes – the same listening task for all science students)

source: http://www.nature.com/scitable/ebooks/english-communication-for-scientists-14053993/118520916#bookContentViewAreaDivID_0:00-3:08

Listen to the recording and complete the table with missing pieces of information (1 – 2 words maximum for each gap). (The third video “Delivering as a non-native speaker”)

1	the target users of the software	
2	the purpose of using it	papers and ...
3	LaTeX is the software's ...	
4	how long the speaker has been using the software	over...
5	type of studies during which he discovered it	
6	place of the studies	
7	the software's features:	powerful, flexible and ...
8	which users should know the discussed software tool	
9	the number of barriers against the adoption of the software	
10	direct manipulation on the screen is hard to...	

Task 2 specialized texts for physics students

Complete the text with the words given below. There are 3 words too many.

<i>questioned deposits focus estimated crystalline conventional resembles samples occupies contrasts crystallized</i>

Found under the ocean floors and below polar regions, methane hydrate is a **1...**form of natural gas and water. Methane hydrate **2...**ice, but it burns if ignited. Until recently, it was looked upon as a nuisance because it sometimes plugged natural gas lines in polar regions.

Now this frozen gas-water combination is the **3...**of research and exploration. Methane hydrate **4...**as much as 50% of the space between sediment particles in **5..**obtained by exploratory drilling. It has been **6...**that the energy locked in methane hydrate amounts to twice the global reserves of **7...**sources (coal, oil, and natural gas).

Methane hydrate may be an energy source in the future, but for now, there are many problems to solve, such as finding and drilling into **8....**of methane hydrate and separating the methane from the water. Care must be taken so that methane does not escape into the atmosphere. Methane, a „greenhouse“ gas, is 10 times more effective than carbon dioxide in causing climate warming.

Task 3

Make questions about the underlined parts of sentences. They are the answers to your questions.

1. The categories are listed in Table 3.

2. This system has been used for several years, but we believe it is out of date.
3. We found that 20 samples were contaminated.
4. They will finish the research next year.
5. Hot weather allows high ozone layers to build up.

Task 4

Choose the right connector.

1. We decided not to use this apparatus. It wasn't suitable and it was too expensive.
 A for example B even if C although D besides
2. Road safety is an important issue it helps to protect lives.
 A so B beside C because D if

Task 5

Uses the word at the end of the sentence to complete it, change the form of the word. Do not use -ing forms.

1. This species is to Easter Island. CHARACTER
2. Pesticides are a major source of POLLUTE
3. Our results were in with the literature. AGREE
4. Let's take a look at where we get our water and how it is PURE
5. Industry-driven threatens the world's tropical forests. FOREST

Task 6

Transform the sentence – paraphrase it but keep the original meaning. You must use given number of words to complete each gap.

1. You will not be able to attend the course if you don't have basic knowledge on genetics.
 You will not be able to attend the course _____ have basic knowledge on genetics. (2 words)
2. It is important to keep the overall balance of energy intake.
 We _____ keep the overall balance of energy intake. (2 words)
3. You cannot overdose water-soluble vitamins.
 Water-soluble vitamins cannot _____. (2 words)
4. First, make sure your assignment has no typing mistakes, then submit it.
 Before _____ make sure it has no typing mistakes. (3 words)

5. We couldn't conduct the experiment because it was very dangerous. (3 words)

The experiment _____ to conduct.

Task 7 specialized texts for physics students

Find in the text below words that correspond with synonyms or definitions below. Each definition describes one word only! The words in the text appear in the order suggested by the order of definitions.

1. expression, sign, evidence
2. recognition, awareness
3. differ
4. employs, makes use of
5. become smaller or shorter
6. extending, stretching out from one point to another
7. use, employment

Temperature is a relative indication of hotness or coldness. On the molecular level, we find that temperature depends on the kinetic energy of the molecules of the substance. In general, the greater the temperature of a substance, the greater the motion of its molecules.

Humans have temperature perception in their sense of touch. However, this perception is unreliable and may vary a great deal among different people. Our sense of touch doesn't enable us to measure temperature accurately or quantitatively. The quantitative measurement of temperature is accomplished through the use of a thermometer, an instrument that utilizes the physical properties of materials for the purpose of accurately determining temperature. The temperature-dependant property most commonly used to measure temperature is thermal expansion. Nearly all substances expand with increasing temperature and contract with decreasing temperature. The most important exception to this rule is water in the temperature range near its freezing point.

The change in length or volume of a substance as a result of heat and temperature changes is a major factor in the design and construction of items ranging from steel bridges and automobiles to watches and dental cements. The cracks in a highway are designed so that in summer the concrete will not buckle as it expands because of the heat. Expansion joints are designed into bridges for the same reason. The Golden Gate Bridge across San Francisco Bay varies in length by about 1 meter between summer and winter.

Heat expansion characteristics of metals are used to control such things as the flow of water in radiators and the flow of heat in homes through the operation of thermostats.

Task 8 specialized texts for physics students

Complete the text below with the phrases from A to G

- A. is especially useful
- B. allow different tissues such as organs and bone to be „seen“ or distinguished
- C. also commercially available
- D. placed in a liquid bath through which ultrasound is passed
- E. sometimes an alternative to
- F. waves have less energetic vibrations

G. on the same order of magnitude as

Ultrasound is the term used for sound waves with frequencies greater than 20,000 Hz. These waves cannot be detected by the human ear, but the audible frequency range for other animals includes ultrasound frequencies. For example, dogs can hear ultrasound, and ultrasonic whistles used to call dogs don't disturb humans. Ultrasonic whistles are used on cars to alert deer to oncoming traffic so that they won't leap across the road in front of cars. Bats use ultrasonic sonar to navigate at night and to catch insects.

An important use of ultrasound is in examining parts of the body. Ultrasound is 1. _____ potentially harmful X-rays. The ultrasonic waves 2. _____ by bouncing waves off the object examined. The waves are detected, analyzed, and stored in a computer. An echogram is then reconstructed. X-rays may harm an unborn fetus and cause birth defects, but ultrasonic 3. _____ and have given no evidence of harming a fetus.

Ultrasound also can be used as a cleaning technique. Minute foreign particles can be removed from objects 4. _____. The wavelength of ultrasound is 5. _____ the particle size, and the wave vibrations can get into small crevices and „scrub“ particles free. Thus ultrasound 6. _____ in cleaning objects with hard-to-reach recesses, such as rings and other jewelry. Ultrasonic cleaning baths for false teeth are 7. _____, as well as electronic toothbrushes. The latter transmits 1.6 Mhz wave action to the teeth and gums to help remove bacterial plaque. Also, there are „sonic“ toothbrushes that vibrate with a frequency of 18 kHz.

Task 9

Choose the right word for each gap.

Causes and consequences of desertification

In general, desertification is caused by variations in climate and by wrong land-management practices in dry land environments. By 1 _____ very nature, arid and semiarid ecosystems are characterized by sporadic or variable rainfall. Thus, climatic changes such as those 2 _____ result in extended droughts can rapidly reduce the biological productivity of those ecosystems. Such changes may be temporary, lasting only a season, or 3 _____ may persist over many years and decades. On the other hand, plants and animals are quick to take advantage of wetter periods, and productivity can rapidly increase during 4 _____ times. Since dry land environments are used for a variety of human purposes, the various activities undertaken in 5 _____ can intensify the problem of desertification. The consequences affect several areas including irrigated croplands, 6 _____ soils are often degraded by the accumulation of salts, and grazing lands, which are harmed by overgrazing, soil compaction, and erosion.

- | | | | |
|--------------|----------|--------|-------------|
| 1. A whose | B this | C its | D their |
| 2. A changes | B that | C this | D processes |
| 3. A other | B then | C they | D any |
| 4. A this | B these | C any | D their |
| 5. A them | B places | C this | D times |
| 6. A all | B that | C its | D whose |

KEY

TASK 1:

1	the target users of the software	scientists
2	the purpose of using it	papers and presentations/slides/presentation slides
3	LaTeX is the software's ...	variation
4	how long the speaker has been using the software	over 20 years
5	type of studies during which he discovered it	PhD
6	place of the studies	Stanford
7	the software's features:	powerful, flexible and reliable
8	which users should know the discussed software tool	html's
9	the number of barriers against the adoption of the software	2
10	Direct manipulation on the screen is hard to...	automatize

TASK 2 :

Found under the ocean floors and below polar regions, methane hydrate is a **crystalline** form of natural gas and water. Methane hydrate **resembles** ice, but it burns if ignited. Until recently, it was looked upon as a nuisance because it sometimes plugged natural gas lines in polar regions.

Now this frozen gas-water combination is the **focus** of research and exploration. Methane hydrate **occupies** as much as 50% of the space between sediment particles in **samples** obtained by exploratory drilling. It has been **estimated** that the energy locked in methane hydrate amounts to twice the global reserves of **conventional** sources (coal, oil, and natural gas).

Methane hydrate may be an energy source in the future, but for now, there are many problems to solve, such as finding and drilling into **deposits** of methane hydrate and separating the methane from the water. Care must be taken so that methane does not escape into the atmosphere. Methane, a „greenhouse“ gas, is 10 times more effective than carbon dioxide in causing climate warming.

TASK 3

1 *Where are the categories listed?*

- 2 *How long has this system been used?*
- 3 *How many samples were contaminated?*
- 4 *When will they finish the research?*
- 5 *What allows high ozone layers to build up?*

TASK 4
1D 2 C

TASK 5
1 characteristic 2 pollution 3 agreement 4 purified 5 deforestation

TASK 6
1 unless you 2 have to/ought to 3 be overdosed 4 submitting your assignment 5 was too dangerous

TASK 7
Temperature is a relative **1. indication** of hotness or coldness. On the molecular level, temperature depends on the kinetic energy of the molecules of the substance. In general, the greater the temperature of a substance, the greater the motion of its molecules.

Humans have temperature **2. perception** in their sense of touch. However, this is unreliable and may **3. vary** a great deal among different people. The quantitative measurement of temperature is accomplished through the use of a thermometer, an instrument that **4. utilizes** the physical properties of materials for the purpose of accurately determining temperature. The temperature-dependant property most commonly used to measure temperature is thermal expansion. Nearly all substances expand with increasing temperature and **5. contract** with decreasing temperature. The most important exception to this rule is water in the temperature range near its freezing point.

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TASK 8
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examined. The waves are detected, analyzed, and stored in a computer. An echogram is then reconstructed. X-rays may harm an unborn fetus and cause birth defects, but ultrasonic **3. waves have less energetic vibrations** and have given no evidence of harming a fetus.

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TASK 9

1 their, 2 that, 3 they, 4 these, 5 them, 6 whose