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Оценочные материалы

ИНОСТРАННЫЙ ЯЗЫК ДЛЯ МАГИСТРАНТОВ

19.04.01 Биотехнология

Технология биологически активных веществ

Магистр

Очная

Документ подписан простой электронной
подписью

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1 семестр/ОПК-7

Множественный выбор

Choose the best sentence for the “Results” section of a scientific report on bioactive compounds.

The extract showed the highest antioxidant activity at a concentration of 50 mg/L.

The experiment was very interesting, and we liked the results.
--

We think this plant is nice and useful.

Множественный выбор

Choose the most appropriate sentence for the Conclusion of a conference abstract on biologically active substances.

The developed encapsulation method improved the stability of the bioactive compound during storage and can be recommended for functional food production.
--

The new method was interesting, and it may be useful in the future.

We liked the results, and the product was better than before.

Упорядочение

Put the sentences in the correct order to form a logical abstract for a scientific publication on bioactive substances.

The aim of this study was to investigate the antioxidant properties of flavonoids extracted from green tea leaves.
--

The extraction was carried out using an ethanol-water mixture at a temperature of 60 °C for 2 hours.
--

The antioxidant activity was evaluated by the DPPH radical scavenging assay.
--

The results showed that the extract exhibited a significant antioxidant effect at a concentration of 100 µg/mL.

Therefore, green tea flavonoids can be considered as promising bioactive compounds for the development of functional food products.

Упорядочение

Put the sentences in the correct order to form a coherent introduction for a scientific report on the technology of biologically active substances.

Biologically active substances of plant origin have attracted considerable attention in the pharmaceutical and food industries.

Among these compounds, polyphenols are widely recognized for their anti-inflammatory and antioxidant properties.
--

However, the efficiency of their extraction depends significantly on the choice of solvent and processing conditions.

Previous studies have demonstrated that ultrasound-assisted extraction can improve the yield of target compounds.

In this context, the present work aims to compare conventional and ultrasound-assisted methods for the extraction of polyphenols from berry raw materials.

Пропущенное слово

Fill in the gaps in the lab report

In this lab work, we determined the protein [concentration] in three samples using the Lowry method. The absorbance was measured at 750 nm using a spectrophotometer. The calibration curve was plotted using [standard] solutions of bovine serum albumin (BSA). The results [showed] that Sample 2 had the highest protein content.

Пропущенное слово

Fill in the gaps using the correct form of the words in brackets

The antimicrobial activity of plant extracts was [evaluated] (evaluate) by the disk diffusion method. The inhibition zones were measured after 24 hours of incubation. E. coli demonstrated the lowest [sensitivity] (sensitive) to the extract from Chamomile. The results were [compared] (compare) with the positive control (ampicillin). All experiments were performed in triplicate.

Соответствие

Laboratory report. Соотнесите начало и конец предложений

In this laboratory experiment, we studied

extracted polyphenols as bioactive substances.

Before extraction, the plant material was

dried and ground into a fine powder.

We used 70% ethanol as a solvent and

kept under stirring during extraction.

Короткий ответ

Поставьте слово в правильную форму: After filtration, we evaporated the solvent to _____ (remove) the solvent and obtain a dry residue

remove

Короткий ответ

Поставьте слово в правильную форму: The mixture was _____ (sonicate) for ultrasonic treatment for 30 minutes.

sonicated

Короткий ответ
Поставьте слово в правильную форму: According to HPLC, the ____ (purify) sample contained a high percentage of polyphenols, especially catechins.
purified

1 семестр/УК-4

Множественный выбор
You need to present the results of your research on the production of vitamin B12 using biotechnology to an international audience. Which modern communication technology is the most effective for this purpose?
Creating a PowerPoint presentation and sharing it via a video conference platform
Sending a handwritten letter to each participant
Printing posters and displaying them in your university hallway

Множественный выбор
You are working in a team to develop a new probiotic product. Your group needs to discuss the project online. What is the best way to organize your communication?
Use a group chat in a professional messenger (like YouGile or Compass) to share updates and documents.
Write your ideas on paper and leave them on the laboratory table.
Wait for your lab head to organize all communication.

Упорядочение
Organizing a Team Meeting Using Digital Tools
Order the steps to plan a virtual team meeting about probiotic development.
Prepare a shared OnlyOffice document with agenda and questions.
Ask team members to add their ideas to the document before the meeting.
Send a calendar invitation with Zoom link to all members.
Start the meeting by reviewing the goals and assigning tasks.
After the meeting, upload notes to your team's cloud folder.

Упорядочение
Preparing for an International Video Conference
Arrange the steps in the logical order for preparing a professional online meeting.
Research the participants' professional backgrounds.
Prepare a short presentation with key data about your biotech project.
Send a calendar invitation with the meeting link and agenda.

Test your microphone, camera, and screen-sharing function.
Follow up with an email summarizing the meeting points and action items.

Пропущенное слово
Вставьте пропущенные слова: What Are Biologically Active Substances? Biologically [active] substances are natural chemicals that affect living organisms. They can be vitamins, antioxidants, enzymes, or plant extracts. People [use] them in food, medicine, and cosmetics. Biotechnology helps us make these [substances] in large amounts, so they are cheaper and easier to get.

Пропущенное слово
Вставьте пропущенные слова: Fermentation – A Simple Way to Produce Vitamins One [common] biotechnological method is fermentation. Tiny microorganisms such as [bacteria] or yeast are grown in a tank with sugar and nutrients. While they grow, they create vitamins like B-12 or vitamin C. After the process, the vitamins are [separated] and purified for use in supplements.

Соответствие
<u>Соотнесите начало и конец предложений</u>
There are several factors that make
the English language essential to communication in our current time.
First of all, English is
the most common foreign language.
Speaking English will help you communicate
with people from countries all over the world.

Короткий ответ
Поставьте слово в правильную форму: With good understanding and communication in English, you can _____(travel) around the globe.
travel

Короткий ответ
Поставьте слово в правильную форму: The main reasons for researchers to participate in scientific conferences are the following: to get informed about the state-of-the-art; to present their own research, and get reactions from peers; to have their paper published in the conference proceedings; to meet others _____ (work) in the same domain.
working

Короткий ответ
Поставьте слово в правильную форму: As for current trends, one of the _____(much) exciting is the bioprospecting of Siberian flora.
most

1 семестр/УК-5

Множественный выбор
You are presenting research on omega-3 production at an international biotech conference. What is the best way to ensure clear communication in English?
Include simple explanations and visuals for non-native speakers.
Speak quickly to save time.
Avoid questions from the audience.

Множественный выбор
At a biotech conference abroad, you meet a researcher from another country. How should you start a conversation in English?
Begin with a simple greeting and ask about their work.
Immediately discuss detailed lab results.
Only talk if they speak perfect English.

Упорядочение
Networking at a Scientific Conference. Arrange the phrases in the correct order for a professional conversation.
Hello, I'm Ivan from IRNTU. I really enjoyed your presentation.
That's interesting! Could you tell me more about your current research?
Thank you! I'm currently working on microbial production of omega-3 using genetically modified microalgae. What about you?
Would you be open to collaborating on a future project? I can send you an email next week.
Nice to meet you too. Yes, let's stay in touch. Here's my business card.

Упорядочение
You are preparing to attend a biotechnology conference in Germany where English is the official language. Put these steps in the correct order.
Submit an abstract about your enzyme research in English to the conference committee.
Check if your abstract was accepted for oral or poster presentation.
Receive acceptance email and register for the conference online.

Book flights and accommodation near the conference venue using an English booking website.
Prepare slides in English with simplified terminology for a multicultural audience.
Practice your presentation in English with international colleagues via Zoom.

Пропущенное слово
Using Plant Cells in a Lab (Plant-Cell Culture) Scientists can grow plant [cells] in a glass bottle instead of planting whole plants. These cells can produce valuable [compounds] such as ginsenosides (from ginseng) or taxol (a cancer drug). The advantage is that the production does not depend on weather or soil quality.

Пропущенное слово
Enzyme Production by Bacteria Enzymes are proteins that speed up chemical [reactions]. Many [enzymes] used in food (e.g., amylase for bread) are made by bacteria like Bacillus subtilis. The bacteria are grown in large fermenters, and the enzymes are harvested, purified, and sold to food factories.

Пропущенное слово
For example, [our] lab is currently scaling up production [of] flavonoids from Rhododendron adamsii, [which] shows remarkable efficacy in preclinical models.

Соответствие
<u>Match Professional Documents with Their Conference Purposes</u>
Business Card
Share contact information for future networking
Conference Abstract
Summarize your research for the conference program
Email to Potential Collaborator
Propose a research collaboration after meeting at conference

Соответствие
<u>Match the activity with the appropriate professional phrase</u>
Asking a question after a talk.
"Could you elaborate on your findings?"
Requesting a collaboration
"Your work on probiotics is fascinating!"
Clarifying a point in a discussion.

"I'm sorry, could you repeat that in simpler terms?"

Короткий ответ

Поставьте слово в правильную форму: We are literally still isolating compounds from accessions he _____ (collect) a century ago.

collected

2 семестр/ОПК-7

Множественный выбор

You are writing a review of a scientific article about the extraction of bioactive substances from plants. What should you include in the first paragraph of your review?

The title, authors, year of publication, and the main aim of the article

A detailed description of your own laboratory experiments

All the numerical results from the original study

Множественный выбор

Choose the correct option (A, B, or C) to complete the sentence taken from an article review: The review under consideration _____ the importance of green chemistry in modern pharmaceutical production.

highlights

shines

brightens

Упорядочение

Arrange the following sections of an article review in the correct order (from first to last)

Introduction: bibliographic details and the main aim of the article.

Summary of methodology: how the research was conducted.

Summary of key results and findings.

Critical evaluation: strengths and limitations of the study.

Conclusion: overall significance and recommendations.

Упорядочение

You are preparing a review of a research article on antioxidant activity of plant extracts. Put the following steps in the correct order.

Read the abstract and introduction to understand the research question.

Highlight key data and figures using a PDF annotator (e.g., Adobe Acrobat,

Mendeley).
Critically analyze the methodology and results sections.
Write your review in a structured document using Word or Google Docs.
Organize references and citations with a reference manager (e.g., Zotero, EndNote).

Пропущенное слово
Fill in the gaps with one word: In the review, the author briefly describes the [methodology] used for flavonoid extraction and concludes that the article makes an important [contribution] to green extraction technologies.

Пропущенное слово
Fill in the gaps with one word: The summary section describes the [methodology] used for the extraction of flavonoids. [Furthermore] , the critical evaluation [highlights] the strengths of the study, such as the novel solvent system.

Соответствие
<u>Writing a Review of an Article. Match the beginnings with the endings.</u>
The review starts with
the main aim and bibliographic details.
The reviewer summarizes
the research method and the main findings.
The method section describes
how the original experiment was carried out.
The critical comment focuses on
the lack of long-term stability data.
This review is useful for
teachers and students who work with bioactive substances.

Соответствие
<u>Match the beginnings with the endings.</u>
On the first slide, the presenter shows
the title, name, affiliation, and date.
To make the review easier to understand, the speaker adds
a simple diagram of the extraction process.
This digital presentation helps to
communicate the review clearly to a wider audience.

Короткий ответ
Поставьте слово в правильную форму: Biologically-active compounds are those that

affect biological processes, beyond the nutritional value, in a way which ____ (to have) an impact on body function.

has

Короткий ответ

Поставьте слово в правильную форму: Biologically active compounds, often called bioactive compounds, are, by consensus, defined as: “essential and nonessential compounds (e.g., vitamins or polyphenols) that occur in nature, ____ (to be) part of the food chain, and can be shown to have an effect on human health” (Biesalski et al., 2009).

are

2 семестр/УК-4

Множественный выбор

Which discovery is considered a key starting point for modern biotechnology of biologically active substances?

Alexander Fleming's discovery of penicillin in 1928.

The invention of the microscope in the 1600s.

The first use of computers in laboratories in the 1990s.

The creation of the first biotech company website.

Множественный выбор

You need to present current trends in biotechnology at an online seminar. What is the best way to structure your slide about global developments?

Use bullet points with key trends: sustainable production, synthetic biology, personalized medicine.

Write long paragraphs with detailed explanations on each slide.

Show only pictures without any text or labels.

Read directly from a scientific journal article.

Упорядочение

Communicating Today's Trends

Put the professional communication actions in the best sequence for sharing national biotech-trend data with the global community.

Gather current domestic market data on CRISPR-based bioactive compounds.

Convert key statistics into an infographic using Canva or Piktochart.

Upload the full white paper to an open-access repository (e.g., ResearchGate).

Write a concise executive summary and post it on LinkedIn with the infographic link.

Host a live webinar in English to present the findings and answer questions.
--

Упорядочение

Writing a Brief Trend Report

Put the steps for creating a professional report on biotech trends in the correct order:
--

Research recent articles on biotechnology developments in your country.

Choose a reliable digital tool (e.g. Google Docs or Word) for drafting.

Use graphs and visuals to present global market data clearly.

Write a summary comparing local and international trends.

Add references and prepare the report for online sharing or printing.

Пропущенное слово

The Birth of Modern Biotechnology

Modern [biotechnology] began in the 19th century with Louis Pasteur's work on fermentation. His discovery that [microorganisms] drive fermentation laid the foundation for industrial applications. In the 20th century, Alexander Fleming's discovery of [penicillin] revolutionized medicine. The 1970s saw the rise of genetic [engineering] when Herbert Boyer and Stanley Cohen created the first recombinant DNA organism. These breakthroughs transformed biotechnology from traditional practices to a high-tech industry focused on producing bioactive substances like antibiotics, enzymes, and hormones through controlled biological processes.
--

Пропущенное слово

Global Trends in Bioactive Substance Production

Today, the biotechnology industry is rapidly [evolving] with key trends including synthetic biology, personalized medicine, and sustainable production. Countries like the USA, China, and Germany lead in biotech [innovation]. A major shift is occurring toward using microorganisms and plant [cells] to produce high-value compounds like omega-3 fatty acids and anticancer agents. Digital tools and AI are accelerating research, while green technologies reduce environmental impact. The global market for bioactive substances is expected to reach \$500 billion by 2030, driven by increasing [demand] for natural and sustainable products.
--

Пропущенное слово

[As] for current trends, one of the most exciting is the bioprospecting of Siberian flora. The extreme [climate] has driven unique evolutionary adaptations, yielding plants with potent, stable antioxidants and neuroprotective agents. For example, our lab is currently scaling up production of flavonoids from <i>Rhododendron adamsii</i> , which shows remarkable efficacy in preclinical models. This seems like it could complement your research on oxidative stress, which I saw [on] your poster.
--

Короткий ответ

Поставьте слово в правильную форму: My favorite search system _____ (be) Yandex Scholar.
is

Короткий ответ
Поставьте слово в правильную форму: It is easy to use, and I usually find good information _____ (quick) for my work.
quickly

Соответствие
<u>Match the Scientists to Their Contributions</u>
Louis Pasteur
Proved microbial fermentation
Alexander Fleming
Discovered penicillin
Herbert Boyer & Stanley Cohen
Created first recombinant DNA organism
Kary Mullis
Invented PCR (Polymerase Chain Reaction)

2 семестр/УК-5

Множественный выбор
Intercultural Origins of Biotechnology Which statement BEST shows the intercultural origin of biotechnology for producing biologically active substances?
Louis Pasteur (France) discovered microbial fermentation, and later Japanese scientists used traditional koji fermentation techniques to produce vitamins on an industrial scale.
Only scientists from the USA developed the first methods to produce antibiotics.
The whole biotechnology industry started in Germany in the 20th century with no influence from other cultures.

Множественный выбор
Understanding Scientific Contributions Across Cultures A multinational biotech team is discussing the history of their field. A Chinese colleague mentions that traditional herbal remedies inspired modern biologically active substance research. How should you respond to show intercultural respect?
Acknowledge that both Western scientific approaches and traditional knowledge

systems have contributed valuable insights to biotechnology.
Insist that only Russian scientists deserve credit for modern discoveries.
Change the subject to avoid cultural differences.

Упорядочение
Organizing a Cross-Cultural Biotech Webinar Put the steps in correct order for planning an inclusive international webinar about biotechnology history
Research cultural communication norms of participating countries.
Invite speakers from different continents to share regional perspectives.
Send invitations with time zone converter links.
Prepare visuals with minimal text for non-native English speakers.
Open Q&A session with moderated turn-taking.

Упорядочение
Arrange these key events in biotechnology's history from oldest to newest. Consider contributions from diverse cultures.
Chinese herbal medicine traditions inspire early research on plant-based bioactive compounds (ancient times).
Alexander Fleming (Scotland) discovers penicillin (1928).
Japanese scientists develop industrial fermentation for amino acids (1950s).
Herbert Boyer (USA) and Stanley Cohen (USA) create recombinant DNA technology (1973).
Jennifer Doudna (USA) and Emmanuelle Charpentier (France) publish CRISPR-Cas9 (2012).

Пропущенное слово
How to Participate in an International Meeting. Business Etiquette DOS and DON'TS "You can't expect everyone to abide by your sensibilities when you travel abroad," says Terri Morrison, best-selling author of the Kiss, Bow, or Shake Hands business etiquette series. "You must understand what's appropriate in their cultures." Here are a few of Morrison's dos and don'ts for conducting a meeting abroad. DO ... • Use the appropriate [greeting] for a particular country, whether it's namaste or bonjour. Learn a few [words] of the local language. • Exchange business [cards] that include different languages/translations – and use a card holder when in Asia. • Be on time, especially in countries like Switzerland or Germany that place an emphasis on [punctuality]. • Pay attention to your dining etiquette and don't be [afraid] to try the local cuisine, or to incorporate it into your event.

Пропущенное слово

How to Participate in an International Meeting.

Business Etiquette DOS and DON'TS

"You can't expect everyone to abide by your sensibilities when you travel abroad," says Terri Morrison, best-selling author of the Kiss, Bow, or Shake Hands business etiquette series. "You must understand what's appropriate in their cultures." Here are a few of Morrison's dos and don'ts for conducting a meeting abroad.

DON'TS

- Make inappropriate public displays of affection.
- Greet [members] of the opposite gender with a hug or a kiss in the following places: China, India, Pakistan, Indonesia, Malaysia, the Philippines, Nigeria, or the Middle East/Persian Gulf.
- Use any graphics, colors, or symbols that may be offensive on your business cards. For example, it is sacrilegious to use the [flag] of Saudi Arabia on a business card because the flag has Allah's name on it.
- Ask overly personal or intrusive questions about family members in the Middle East, or about personal [finances]/costs in France.

Пропущенное слово

International networking

English is the [most] popular language on the Internet and the number one language for electronic communication. [If] you are therefore keen on keeping up with the happenings in the international community, it is essential to speak and understand English. But we aren't only building virtual [relationships] – a look around you will tell that our everyday environments are multicultural and there are people out there who are waiting to establish long lasting relationships with us (as long as we find a common language to communicate in).

Короткий ответ

Поставьте слово в правильную форму: From _____ (ask) for directions to finding accommodation, and making friends, life abroad is much more comfortable when you are understood.

asking

Короткий ответ

Поставьте слово в правильную форму: Some people even say that language is what _____ (to separate) us from animals and makes us human.

separates

Короткий ответ

Поставьте слово в правильную форму: There are several factors that _____ (to make) the English language essential to communication in our current time..

make

--

3 семестр/ОПК-7

Множественный выбор
You are preparing the Results section of your scientific article on antioxidant activity. What is the most effective way to use modern communication tools in this section?
Present your key findings using clear graphs and tables created with software like Excel or GraphPad.
Write all your data in long paragraphs without any visuals.
Describe every numerical value only in words to save space.

Множественный выбор
You need to give an online oral presentation of your scientific article at a conference. Which of the following best demonstrates the use of modern communication technologies and techniques?
Use a well-structured slide deck with bullet points, key visuals, and share your screen via the conference platform.
Send your full article to participants by email and avoid speaking.
Use slides that contain large blocks of text and read them word for word.

Упорядочение
You are writing the Materials and Methods section of a scientific article on the extraction of polyphenols. Arrange the following steps in the logical experimental order.
Fresh plant leaves were collected, washed with distilled water, and air-dried.
The dried plant material was ground into a fine powder using a laboratory mill.
The powder was mixed with 70% ethanol and subjected to ultrasonic extraction for 30 min.
The extract was filtered and the solvent was evaporated under reduced pressure.
The crude extract was stored at 4°C for further analysis.

Упорядочение
You are preparing a PowerPoint presentation to present your research on antimicrobial activity of bioactive compounds at an international conference. Arrange your slides in the correct order.
Title slide: title, your name, affiliation, and conference details.
Introduction: background, research gap, and objectives.
Materials and Methods: description of bacterial strains, extracts, and assays used.

Results: graphs and tables showing MIC values and antimicrobial effects.
Conclusion: summary of findings and practical implications.
Acknowledgments and References.

Пропущенное слово
Scientific Article Context (Original Research). Fill in the gaps with one word: The plant material was [extracted] with 70% ethanol using ultrasound-assisted extraction. The total phenolic content [yield]was 15.2% under optimal [conditions].

Пропущенное слово
Scientific Article Context (Original Research). Fill in the gaps with one word: In the Discussion, the authors must [interpret] their findings in the context of previous studies. It is crucial to acknowledge the study's [limitations] honestly. The Graphical Abstract, created in BioRender or PowerPoint, should [visually] represent the main mechanism of action. The manuscript is submitted through the journal's online [submission] platform.

Соответствие
<u>Based on a scientific article match the beginnings with the endings</u>
In this study, we investigated
the effects of a new bioactive substance from plant waste.
The plant material was
dried, ground, and weighed before extraction.
The data were analyzed with
one-way ANOVA in GraphPad Prism.

Соответствие
<u>Based on a scientific article match the beginnings with the endings</u>
The discussion explains
the delivery of bioactive compounds to the target site.
The final paragraph highlights
a promising way to use bioactive substances in medicine.
For future work, the authors recommend
further testing under industrial conditions.

Короткий ответ
Поставьте слово в правильную форму: Conclusion. This chapter ____ (to present) the importance of various dietary biologically active substances, fruits, vegetables, berries, medicinal plants, and their metabolites to fight against multiple gastrointestinal

disorders.
presents

Короткий ответ
Поставьте слово в правильную форму: In an extensive paper, FPH were recently ____ (to describe) as a new source of biologically active substances (Guérard et al., 2005a).
described

3 семестр/УК-4

Множественный выбор
Structure of a Master's Thesis Which of the following is the correct order of main sections in a standard master's thesis in biotechnology?
Introduction – Methods – Results – Discussion – Conclusion
Abstract – References – Results – Methods – Introduction
Title – Discussion – Results – Methods – Abstract

Множественный выбор
Presenting Your Research Professionally You are preparing to present your master's research on bioactive substances at an academic conference. What is the best way to start your oral presentation?
Begin with a clear statement of your research question and its importance.
Read your entire thesis word for word.
Start with detailed data tables.

Упорядочение
Presenting Research Online Put the steps in the correct order to prepare an online academic presentation
Write key points using bullet points, not full paragraphs.
Create slides with charts, images, and short explanations.
Practice speaking clearly and timing each slide.
Check your microphone and camera 10 minutes before starting.

Упорядочение
Order the Steps for Publishing an Academic Paper
Write the abstract, methodology, results, and conclusion sections.

Use reference-management software (e.g., EndNote) to format all citations.
Share the draft with co-authors via email for peer review.
Incorporate co-authors' feedback and finalize the paper.
Proofread the text using grammar-checking tools (e.g., Grammarly).
Submit the manuscript through the journal's online submission portal.

Упорядочение
Writing a Scientific Email to a Colleague Arrange the sentences to write a professional email about sharing lab results.
Dear Dr. Smith,
I'm writing to share the latest results from our enzyme production experiment.
I've attached the Excel file with our fermentation data.
Thank you for your collaboration on this project.
Please let me know if you need more details.

Пропущенное слово
Structure of a Master's Dissertation A Master's dissertation in biotechnology follows a precise [structure]. It [begins] with an abstract summarising the research. The [introduction] establishes context, states the research question, and reviews relevant literature. The [methodology] section details experimental design, materials, and procedures. Results present data visually (graphs, tables). The discussion interprets [findings], addresses limitations, and links to existing knowledge. Finally, the [conclusion] highlights contributions, followed by references and appendices. Modern tools like reference managers (EndNote) and data visualisation software ensure professional presentation.

Пропущенное слово
Presenting Your Research Using Modern Technology Presenting a master's thesis requires effective use of [digital] tools. Students typically create PowerPoint or Google Slides [presentations] with clear visuals, graphs, and minimal text. Recording a practice video helps improve delivery and [timing]. During the defense, screen-sharing via Zoom or Teams allows remote committee members to participate. Many universities now require uploading the thesis to [institutional] repositories or platforms like ResearchGate. Using reference management software (Mendeley, Zotero) ensures accurate [citations]. These modern communication technologies enhance clarity, accessibility, and professionalism in academic research presentation.

Пропущенное слово
English is also essential to the field of education. In many countries, children are [taught] and encouraged to learn English as a second language. Even in countries [where] it is not an official language, such as the Netherlands or Sweden, we will find

many syllabi in science and engineering are written in English. Because it is the dominant language in the [sciences], most of the research and studies you find in any given scientific field will be written in it as well. At the university level, students in many countries study almost all their subjects in English in order to make the material more accessible to international students..

Короткий ответ

Поставьте слово в правильную форму: Write a concise outline of the Methods chapter for a master's thesis that investigates the production of a plant-derived antioxidant ____ (use) recombinant yeast.

using

Короткий ответ

Поставьте слово в правильную форму: You should describe how you would ____ (prepare) a 10-minute oral presentation of the same thesis for an international conference.

prepare

3 семестр/УК-5

Множественный выбор

Presenting Research to a Diverse Audience

You are presenting your biotechnology research at a global conference. What is the most culturally sensitive approach?

Include visuals and examples that are relatable across cultures.

Use humor specific to your home country to engage the audience.

Avoid acknowledging cultural differences in research practices.

Множественный выбор

Cross-Cultural Thesis Collaboration

You are co-writing a thesis with international partners from Japan and Brazil. Which communication practice best supports effective intercultural collaboration?

Encourage open discussion of different academic writing styles and agree on a shared format.

Schedule all meetings only in your local time zone.

Avoid giving feedback to prevent cultural misunderstandings.

Упорядочение

Presenting Research at a Multicultural Conference Arrange the five steps in the logical sequence for an effective presentation.
Prepare a slide deck with clear visuals, graphs, and minimal text.
Include a brief section that explains the cultural relevance of the study (e.g., local use of bioactive substances).
Practice the presentation in multiple languages or with subtitles if possible.
Use a live polling or Q&A tool (e.g., Mentimeter, Slido) to engage a diverse audience.
.Record the session and upload it to the conference platform for future reference.

Упорядочение
Organizing an International Thesis Advisory Meeting Put these steps in the correct order for preparing a virtual meeting with your international thesis committee (members from Germany, India, and Brazil):
Research cultural expectations for academic meetings in each committee member's country
Prepare a shared digital document with meeting agenda and time zone converter
Schedule the meeting at a time that reasonably accommodates all time zones
Send calendar invitations with clear instructions for joining the video call
Follow up with individual emails in each member's preferred communication style

Пропущенное слово
Intercultural Collaboration in Research Successful biotechnology [research] involves international collaboration, requiring cultural sensitivity in communication and presentation. When writing a thesis with global [partners], agree on shared writing styles and use clear language to overcome language barriers. Presentations should include universally relatable visuals and allow extra time for [questions]. Virtual tools like Google Meet and shared documents facilitate smooth [teamwork]. Recognizing cultural [differences] and adapting communication strategies fosters effective collaboration and strengthens professional relationships in the scientific community.

Пропущенное слово
Evolution of Biotechnology Biotechnology of bioactive [substances] has evolved from traditional [fermentation] to modern genetic engineering. Today, scientists use CRISPR technology to enhance production of compounds like [omega-3] and anticancer agents. Leading countries include USA, China, and Germany. The trend is shifting toward sustainable, [plant-based] production methods. Digital tools and AI accelerate research, while green technologies minimize environmental [impact]. This field continues to [grow] rapidly, driven by increasing demand for natural health products and personalized medicine solutions worldwide.

Пропущенное слово

Resources Make Learning English Easy

Although many people think that it is very difficult and [confusing], English is actually the easiest language of the world to learn because there are so many resources available. [As soon as] you decide you want to learn, there are thousands of resources on the Internet and in bookstores. I am not just talking about lessons and grammar books. You can supplement traditional learning materials with children's TV shows and books. I suggest watching as much TV as you [can], in English with English subtitles, and you will pick up conversational English in no time.
--

Короткий ответ

Поставьте слово в правильную форму: Supervisors can be influential, for good or ill, in this area as well, but you will want to have at least some general idea, and it will likely have been ____ (draw) from something encountered in your coursework.
--

drawn

Короткий ответ

Поставьте слово в правильную форму: The master's thesis is almost always at or near the conclusion of a course of study and so allows you a chance to work on some aspect of course-work that you would like to ____ (pursue) further.
--

pursue

Короткий ответ

Albert Einstein, Steven Hawking, Niels Bohr... many of the people whose names _____ (to be) synonymous with the word genius were also PhD graduates.
--

are

1 семестр

Эссе		
Содержание задания	Критерии для оценивания	Коды компетенций
<u>Write a short report (120-150 words) about the importance of knowing a foreign language.</u>	Ответ соответствует объёму, структуре эссе, логичен, содержит ясное указание на важность владения иностранным языком. При этом допустимы не более пяти грамматических, лексических ошибок.	ОПК-7, УК-4, УК-5
<u>You are telling your colleague from China how English helps you in your career as a biotechnologist (8-10 sentences) according to the plan:</u> - Access to global research (journals, databases) - Communication with international labs or collaborators - Use of digital tools (e.g., ResearchGate, Zoom, Mendeley) that rely on English - Cultural understanding gained through reading/listening to scientists from different countries.	Ответ соответствует объёму, раскрывает все пункты плана, логичен, содержит четкие аргументы. При этом допустимы не более пяти грамматических, лексических ошибок.	ОПК-7, УК-4, УК-5
<u>Write a short review “Digital Resources for Biotechnology Research” (8-10 sentences) answering the questions:</u> <u>Which e-libraries or database of bioactivity data do you know?</u> <u>Do you use any social network to communicate with your colleagues? Which search system do you prefer, why?</u>	Приблизительный ответ магистранта (обучающийся может выбрать другие цифровые сервисы для выполнения задания) I am working with biotechnology of biologically active substances. I know some important e-libraries and databases. eChemPortal is very useful because it has information about chemicals and their biological effects. eLibrary.ru is another big database where I can find details about chemical substances and their activities. I also use Yandex Scholar sometimes to find scientific papers about bioactive substances. For talking with colleagues, I use ResearchGate. It is a social network for scientists. There, I can read papers, share my own work, and ask questions to other researchers. It helps me connect with people in my field. My favorite search system is Yandex Scholar. I prefer it because it searches many different sources at once – journals, books, conference papers. It is easy to use, and I usually find good information quickly for my work. В ответе магистранта допускается не более пяти грамматических и лексических ошибок.	ОПК-7, УК-4, УК-5

2 семестр

Эссе		
Содержание задания	Критерии для оценивания	Коды компетенций
<u>You are on a coffee break during an international biotechnology conference. A researcher from Germany approaches you after watching your presentation "Russian contribution to the production of biologically active substances" to ask a few questions. Answer his questions. Your answers should contain 3-4 sentences.</u> <u>GR: Excuse me, I enjoyed your presentation. Very interesting! I'm Dr. Müller, from the Institute of Biotechnology in Berlin.</u> <u>You: Thank you, Dr. Müller! It's great to meet a fellow researcher. I'm delighted you found it interesting.</u> <u>GR: Absolutely, I'd love to hear more about the historical side. In your presentation you mentioned early Russian scientists. Could you give more details about one of them and how his work influences modern research on bioactive compounds?</u> <u>You: Certainly! One of the most influential figures is Nikolai Vavilov. He was... (Вы можете выбрать другого российского/советского ученого).</u> <u>GR: That historical context is fascinating. What about modern Russia? What are the most significant current trends or unique resources driving biotech innovation there now?</u> <u>You: Gladly! One of the most promising trends right now is the exploration of Siberian plant species for novel antioxidants. (Вы можете выбрать другой тренд в развитии биотехнологии в России)</u>	Ответы магистранта логичны, развернуты (3-4 предложения), мысль выражена ясно, фактические ошибки отсутствуют. Допускается не более пяти грамматических, лексических, фонетических ошибок, не влияющих на понимание содержания.	ОПК-7, УК-4, УК-5
<u>You're preparing a poster for a conference and writing the title "Green Chemistry in the</u>	Приблизительный текст магистранта: Green chemistry is very important in the production of biologically active substances	ОПК-7, УК-4, УК-5

<u>Production of Biologically Active Substances."</u> <u>You want to publish it on VK/TenChat with the</u> <u>hashtags #BAS and a link to the poster to get</u> <u>feedback from your colleagues. Write this text.</u> <u>Include:</u> <u>I. Introduction: The Importance of Green</u> <u>Chemistry</u> <u>Main idea: Green chemistry plays a key role in</u> <u>BAS production.</u> <u>II. Main Body: Principles and Methods</u> <u>A. Definition of Green Chemistry:</u> <u>Making chemicals in a safe and clean way.</u> <u>B. Key Practices in BAS Production:</u> <u>1. Using better resources:</u> <u>Using less harmful materials and energy.</u> <u>Example: Choosing natural sources like plants.</u> <u>2. Reducing negative impact:</u> <u>Using new methods to create less waste and</u> <u>pollution.</u> <u>Example: Using water instead of dangerous</u> <u>solvents.</u> <u>III. Conclusion: Benefits and Future Outlook</u> <u>A. Positive Outcomes:</u> <u>It saves resources.</u> <u>It protects the environment (good for people and</u> <u>nature).</u> <u>B. Future Perspective:</u> <u>Green chemistry will lead to safer and better BAS</u> <u>for everyone.</u>	(BAS). Green chemistry means making chemicals in a safe and clean way. In BAS production, scientists try to use less harmful materials and less energy. They choose natural sources, like plants, to get useful substances. Factories use new methods to make less waste and pollution. For example, they use water instead of dangerous solvents. Green chemistry also helps to save resources and protect the environment. This is good for people and nature. In the future, green chemistry will help make BAS safer and better for everyone.	
<u>Prepare a 5-6-minute oral speech for a seminar</u> <u>group. Your task is to explain why using water</u> <u>instead of hazardous solvents is important in the</u> <u>production of Biologically Active Substances</u> <u>(BAS). In your speech you should:</u> <u>-Explain what BAS (Biologically Active</u> <u>Substances) are and why solvents are usually</u> <u>used.</u> <u>-Name two or three problems related to</u> <u>hazardous solvents.</u> <u>-Explain why water is safer.</u> <u>-Say two or three advantages of switching to</u>	Приблизительный ответ магистранта Good afternoon, everyone! Today, I would like to talk about why it is important to use water instead of hazardous solvents in the production of Biologically Active Substances, or BAS. First, let me explain what BAS are. BAS are special substances that can affect living things. They are used to make medicines, cosmetics, fertilisers, and many other products. So, why should we use water instead of dangerous solvents? Let me give you three important reasons. The first reason is environmental protection. Hazardous solvents, like benzene or toluene, are very harmful to nature. They pollute water and soil. For example, if a factory releases these chemicals into a river, the water becomes toxic. This kills fish, plants, and other animals. Water, however, is safe for the environment. It does not	ОПК-7, УК-4, УК-5

water for people or the environment.

Useful Phrases for This Task:

BAS are...

Solvents are used to...

One problem is...

Hazardous solvents can...

Water is safer because...

One advantage of using water is...

Remember: water is better!

Thank you for listening!

Use these phrases to keep your speech simple,
clear, and well-organized!

create pollution. After use, water can be easily cleaned and returned to the ecosystem. The second reason is worker safety. Working with hazardous solvents can be dangerous for people. These chemicals can cause serious health problems. For example, if workers breathe in the fumes, they may have lung problems or headaches. If the solvent touches their skin, it can cause burns or rashes. Water is completely safe. Workers do not need to worry about poisoning or burns when they use water.

The third reason is cost savings. Hazardous solvents are expensive. Factories spend a lot of money to buy them. Also, they need to spend more money on disposal because these chemicals cannot be poured down the drain. Special treatment is required, and this is costly. Water is cheap! It is easy to obtain and inexpensive to clean. Using water helps companies save a lot of money.

Finally, there is another important point: laws. Many countries have strict laws about chemical use. If a company uses hazardous solvents, it may receive a large fine. Using water helps companies follow these laws easily.

In conclusion, using water instead of hazardous solvents is important because: it protects the environment, it keeps workers safe, it reduces costs, it helps companies obey the law.

Thank you for listening! I am happy to answer any questions you have!

Эссе		
Содержание задания	Критерии для оценивания	Коды компетенций
<u>Write a short article for a digital student blog (80-100 words) based on the quote "If I give a boring presentation, I've been impolite to my colleagues, taking their time and energy" (R. Mauersberger). Use this plan to help you:</u> <u>1.Introduction: Do you agree with this idea? Why do you think a boring presentation is "impolite"?</u> <u>2. Your Experience: Think about a presentation you have seen (at university, at work, or online). Was it interesting or boring? What made it good or bad? (For example: the speaker's voice, visuals, stories, etc.)</u> <u>3. Your Advice: What are 2-3 simple tips for making a presentation interesting and respectful to the audience?</u> <u>You could begin like this: I completely agree with this quote. When a speaker gives a boring presentation, it feels like they don't respect their audience...</u> <u>Можно использовать эти фразы:</u> <u>Useful Vocabulary:</u> <u>To describe a presentation:</u> <u>Positive: engaging, interesting, useful, clear, well-prepared, memorable, visual.</u> <u>Negative: boring, long, confusing, monotonous, a waste of time.</u> <u>Verbs and phrases:</u> <u>to pay attention</u> <u>to lose interest</u> <u>to respect someone's time</u> <u>to share ideas</u> <u>to use visuals (pictures, graphs)</u> <u>to speak clearly</u> <u>to tell a story</u>	Приблизительный ответ магистранта Title: Respectful Presentations I agree with Rainer Mauersberger. A boring presentation is impolite because it wastes colleagues' time and energy. I remember a school presentation that was very long and the speaker just read from slides. It was boring! I lost interest quickly. To be polite, presentations should be interesting. I think speakers should speak clearly, use pictures or videos, and not talk too long. This shows respect for the audience's time and helps everyone stay focused. A good presentation shares useful information without making people feel tired.	ОПК-7, УК-4, УК-5

<u>to ask questions</u> <u>At an international online meeting, you were joined by a master's student from Germany who is studying biotechnology in his country and asked to talk about your scientific path using three points "Science Career Plan: What I Love, What I Want, What I Know". You tell him about your scientific path according to the proposed model:</u> <u>• what you enjoy most about working in your scientific field;</u> <u>• what you would like to do (and not like to do) next in your career;</u> <u>• which of your past and present experiences are most relevant to your future in science (80-90 words).</u>	Приблизительный ответ магистранта Hello! My name is Dmitry. I'm a master's student in biotechnology. What I enjoy most I love working in the laboratory and doing experiments with plants. I enjoy teamwork with my colleagues. It's exciting because our research can help create new medicines. What I want I would like to work in a pharmaceutical company in R&D. I want to develop new drugs. I don't want to do only administrative work – I prefer practical research. My experience Now I have an internship at a research institute. I learned HPLC and data analysis. Last year, I presented my project at a student conference. These skills are important for my future career. Thank you for listening! Допустимо не более пяти грамматических, лексических, фонетических ошибок, не влияющих на понимание.	ОПК-7, УК-4, УК-5
<u>You are a third-year master's student majoring in technology of Biologically Active Substances. Write a short essay (200-250 words) about how cultural diversity influences your studies and future career in this field.</u>	Ответ соответствует объёму и структуре эссе, логичен. При этом допустимы не более пяти грамматических и лексических ошибок.	ОПК-7, УК-4, УК-5
<u>Write an abstract in English (120–150 words) describing your own mini-research on the extraction, analysis, or application of a bioactive substance (polyphenols, flavonoids, essential oils, antioxidants, etc.).</u> <u>Submit the abstract as a Word document formatted with an academic citation/grammar tool (Grammarly, Mendeley, EndNote)</u> <u>Structure:</u> <u>1. Background (1–2 sentences).</u> <u>2. Aim of the study.</u> <u>3. Methods (extraction / analysis / equipment).</u> <u>4. Main results (with at least one quantitative value).</u> <u>5. Conclusion and practical significance.</u> <u>6. 3–5 keywords.</u>	Полностью соблюдена требуемая структура (Background, Aim, Methods, Results, Conclusion, Keywords). Объем текста: 120–150 слов. В разделе Results указано ≥1 количественное значение. Язык: академический английский B2; грамматические и лексические ошибки не искажают смысл и не затрудняют понимание. Указаны 3–5 релевантных ключевых слов.	ОПК-7, УК-4, УК-5
<u>Prepare a 3–5-minute oral presentation in English on your mini-research or laboratory work in the field of «Technology of Bioactive Substances».</u>	- Соблюдена вся требуемая структура выступления: название, имя, организация; цель и обоснование; методы; основные результаты; вывод и практическая значимость; список литературы. - Продолжительность выступления составляет 3–5 минут. - В разделе «Основные результаты» представлены как минимум одно	ОПК-7, УК-4, УК-5

<u>Structure of your talk:</u> <u>1. Title, name, affiliation.</u> <u>2. Aim and background.</u> <u>3. Methods.</u> <u>4. Main results.</u> <u>5. Conclusion and practical value.</u> <u>6. References .</u>	количественное или наглядное подтверждение (цифра, факт). - Речь понятная, академическая, на уровне В2: ошибки не затрудняют восприятие содержания.	
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