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Оценочные материалы для промежуточной аттестации по дисциплине

Иностранный язык

Код, направление подготовки	13.03.02. Электроэнергетика и электротехника
Направленность (профиль)	Электроэнергетика и электротехника
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Типовые задания для контрольной работы:

Семестр 1

Контрольная работа №1

1. Put the verb in the correct form (Present Simple or Present Continuous).

- 1) The lecturer usually _____ (give) lectures every Monday morning.
- 2) Right now, the students _____ (compete) in the sports facilities.
- 3) Our university _____ (comprise) several educational buildings and a research library.
- 4) The postgraduate students _____ (work) on their theses this semester.
- 5) Every semester, the academic staff _____ (establish) new courses to improve students' skills.
- 6) The Associate Professor _____ (work) in the laboratory every day to conduct scientific research.
- 7) _____ the university _____ (take place) in any international rankings this year?
- 8) The students _____ (not / read) books in the reading hall now; they _____ (attend) a seminar.
- 9) The Education Plan _____ (include) many interesting activities for creative personal development.
- 10) Is your friend _____ (study) for her Master's Degree while also _____ (participate) in extracurricular activities?

2. Read the text. Choose the correct form of the verb (Past Simple, Past Continuous or Present Perfect)

Last year, the scientists 1) _____ (discovered / have discovered / were discovering) a new method to improve renewable energy sources. During the experiment, they 2) _____ (observed / were observing / have observed) the reactions very carefully to understand the process better. While the team 3) _____ (was working / worked / have worked) late in the laboratory, unexpected results 4) _____ (appeared / were appearing / have appeared). Since then, the researchers 5) _____ (have conducted / conducted / were conducting) several additional studies to confirm their findings.

In the past decade, science 6) _____ (made / has made / was making) significant progress in many fields, including medicine and environmental studies. Scientists 7) _____ (developed / have developed / were developing) vaccines that have saved millions of lives. Last month, a famous biologist 8) _____ (gave / has given / was giving) a lecture about recent advancements in genetics. While the audience 9) _____ (listened / was listening / has listened) attentively, the lecturer 10) _____ (showed / was showing / has shown) impressive visuals.

3. Read the text and choose the correct answer.

Jobs in Electrical Engineering

The electrical engineering industry is rapidly evolving, and many new opportunities will become available soon. Companies are going to hire more power system engineers, electrical design specialists, and automation experts to keep up with technological advancements. I am starting a course in renewable energy systems this semester because I am going to work as an electrical engineer after graduation.

Next year, many engineers will work on smart grid projects as the demand for efficient energy distribution grows. The sector is also planning to introduce more advanced energy management systems that will help reduce power consumption worldwide. Specialists skilled in renewable energy and automation will definitely have better career prospects.

My colleague Alex is meeting with a recruiter next week. He is going to apply for a job as a control systems engineer. The electrical engineering market is competitive, but those who keep enhancing their skills will succeed and find great opportunities.

1. What will companies do in the near future?

- a) Lay off many engineers
- b) Hire more power system engineers, electrical design specialists, and automation experts
- c) Stop investing in new technologies

2. Why is the author starting a course in renewable energy systems?

- a) To become a power plant operator
- b) To work as an electrical engineer after graduation
- c) To switch to software development

3. What is true about the electrical engineering market according to the text?

- a) It is very competitive, but people who improve their skills will succeed
- b) There are no new job opportunities
- c) It only offers jobs in power generation

4. Match the words on the left with their correct definitions on the right.

Words:	Definitions:
1) Power system engineer	a) A specialist focused on creating automated control systems to increase efficiency.
2) Automation expert	b) A professional who designs and analyzes electrical power systems for generation and distribution.
3) Control systems engineer	c) A professional working on technologies that generate energy from renewable sources (solar, wind, etc.).
4) Renewable energy engineer	d) An expert who develops systems that regulate machinery and processes electronically.
5) Smart grid	e) An advanced electrical grid that uses digital communications for efficient energy distribution.

5. Choose the correct future form.

- 1. The engineering team _____ (will install / is going to install) the new energy management system next month.

2. He _____ (is meeting / will meet) with the project manager tomorrow to discuss automation upgrades.
3. Many electrical engineers _____ (will work / are working) on renewable energy projects soon.
4. I believe smart grids _____ (will revolutionize / are going to revolutionize) the way we consume electricity.

Ключи:

1.

- | | |
|------------------|------------------------------------|
| 1) gives | 6) works |
| 2) are competing | 7) Does ... take place |
| 3) comprises | 8) are not reading / are attending |
| 4) are working | 9) includes |
| 5) establish | 10) studying / participating |

2.

- | | |
|-------------------|-------------------|
| 1) discovered | 6) has made |
| 2) were observing | 7) have developed |
| 3) was working | 8) gave |
| 4) appeared | 9) was listening |
| 5) have conducted | 10) was showing |

3. 1. b; 2. b; 3. a

4. 1. b; 2. a; 3. d; 4. c; 5. e;

5. 1. is going to install 2. is meeting 3. will work 4. will revolutionize

Семестр 2

Контрольная работа №2

1. Complete the sentences using the correct pronoun.

they, it, her, his, themselves, this, mine, those, us, their, me, them, its, that, these

- 1) This new smartphone is very advanced. Have you seen _____?
- 2) The device is portable, but sometimes I prefer to use my laptop because it is more convenient for ____.
- 3) The scientists in the molecular biology lab did the experiment _____ to ensure accuracy.
- 4) The new aircraft has advanced satnav/GPS systems. _____ help pilots find their way easily.
- 5) We sent the data to the main server. Please let __ know if there are any problems.
- 6) The company updated _____ software last week to fix bugs.
- 7) The engineers examined the clones carefully because some of _____ showed unexpected traits.
- 8) The developers themselves programmed the AI. They are very proud of ____ work.
- 9) Tom showed me _____ new laptop. It's very fast.
- 10) Maria updated _____ smartphone yesterday because the old one stopped working.
- 11) Look at _____ satellites in the image. They help with global communication.
- 12) _____ device here is designed for people with limited mobility.
- 13) _____ vehicle over there is the latest electric model from a leading manufacturer.

14) I found this app very useful, but _____ is better because it has more features.

2. Choose the correct preposition

- 1) The city centre is very crowded, especially (at / in / on) weekends.
- 2) It is difficult to find a parking space (at/ on / in) the shopping mall during busy hours.
- 3) Urban planners try to reduce pollution (at/ on / in) cities by creating more green zones.
- 4) The nightlife is lively (at/ on / in) Fridays and Saturdays, attracting many visitors.
- 5) The cost of living affects many families, especially (at/ on / in) big metropolitan areas.
- 6) Overpopulation causes heavy traffic (at/ on / in) main roads in the city.
- 7) She went (to / in / for) the supermarket to buy groceries before dinner.
- 8) The concert will start (at/ in / on) 7 PM sharp.
- 9) Many people feel stressed (at/ in/ on) Monday mornings.
- 10) We usually have meetings (at/ in/ on) the afternoon.
- 11) She was born (at/ in/ on) July 15th, 1990.
- 12) I like to relax and chill out (at/ in/ on) weekends.
- 13) The traffic is always bad (at/ in/ on) rush hour.
- 14) Our office closes early (at/ in/ on) Fridays.
- 15) The city organizes cultural activities (at/ in/ on) the summer.
- 16) The pedestrian walked (across / through / above) the busy street to get to the park.
- 17) The car drove (across / through / around) the tunnel to avoid traffic lights.
- 18) She climbed (up / into / down) the hill to enjoy the view of the city.
- 19) People moved (in / on / around) the crowded marketplace looking for fresh food.
- 20) The cyclist rode (along / off / between) the riverbank enjoying the scenery.
- 21) The dog jumped (over / past/ behind) the fence to chase a squirrel.
- 22) The train passed (past / off / from) the station without stopping.

3. Choose the correct option.

- 1) There is (a / some / many) pollution in the city because of cars and factories.
- 2) We should plant some trees to help reduce (the / a / an) effects of climate change.
- 3) There isn't (many / much / some) water pollution in this river, so it's safe for fish.
- 4) Many people support (many / much / any) environmentally friendly products to protect the planet.
- 5) The polar ice caps are melting because of (a / an / the) global warming.
- 6) There is only (little / few / much) clean air left in some parts of the world.
- 7) We don't have (any / some / no) energy-efficient appliances at home yet.
- 8) We need to reduce (the / much / little) carbon footprint to slow down global warming.
- 9) There is too (the / much / little) smog in big cities, which affects people's health.
- 10) The government introduced (some / any/ much) ecological policies to save energy and recycle waste.
- 11) There are only (a few / a little / little) animals left in the wild because many species are extinct.
- 12) It takes (a few / a little / little) effort to save energy, but the results are worth it.

4. Read the letter and fill in the gaps with the following expressions:

I am confident / I am writing to / Yours sincerely / I hope / I look forward to / Thank you for

Dear Mr. Mercer,

_____ this letter finds you well. 2) _____ express my interest in the electrical engineer position advertised on the website of your company. With my background in power system design, I believe I possess the skills and enthusiasm to contribute effectively to your team.

I have 5 years of experience in renewable energy and electrical system automation. I am particularly drawn to your company because of its commitment to sustainable energy solutions.

_____ that my combination of technical expertise and project management skills make me a strong candidate for this role. I am eager to bring my knowledge of smart grid technologies and my proactive approach to your organization.

_____ considering my application. 5) _____ the opportunity to discuss how I can contribute to your team.

6), _____

Oliver Bryce

5. Choose the correct answer.

- 1) What position is Oliver applying for?
 - a) Mechanical engineer
 - b) Electrical engineer
 - c) Renewable energy consultant
 - d) Project manager
- 2) Why is Oliver particularly interested in this company?
 - a) Because of its high salary offers
 - b) Due to its commitment to sustainable energy solutions
 - c) Because it is a large multinational
 - d) Because it specializes in software development
- 3) What skills and experience does Oliver mention in his letter?
 - a) Experience in renewable energy and electrical system automation
 - b) Experience in financial analysis
 - c) Knowledge of marketing strategies and sales
 - d) Experience in customer service and support

6. Put the adjective / adverb in the correct form (positive, comparative, superlative).

- 1) Effective communication skills are (important) than technical knowledge in customer service.
- 2) This report is (detailed) than the one we submitted last month.
- 3) Our new manager responds to emails (quickly) than his predecessor.
- 4) The meeting room on the second floor is (quiet) than the one near the entrance.
- 5) To improve productivity, employees should communicate as (clearly) as possible.
- 6) Among all candidates, she gave the (professional) presentation.
- 7) The new software makes communication (efficient) by integrating all messages in one place.
- 8) In stressful situations, speaking (calmly) helps avoid misunderstandings.
- 9) Our team works (closely) with the marketing department than before.
- 10) The client was (satisfied) with our service yesterday than last year.

Ключи:

1.

- | | | |
|---------------|----------|-----------|
| 1) it | 6) its | 11) these |
| 2) me | 7) them | 12) this |
| 3) themselves | 8) their | 13) that |
| 4) they | 9) his | 14) mine |
| 5) us | 10) her | |

2.

- | | | |
|-------|------------|-------------|
| 1) on | 9) on | 17) through |
| 2) at | 10) in | 18) up |
| 3) in | 11) on | 19) around |
| 4) on | 12) on | 20) along |
| 5) in | 13) at | 21) over |
| 6) on | 14) on | 22) past |
| 7) to | 15) in | |
| 8) at | 16) across | |

3.

- | | | |
|---------|-----------|--------------|
| 1) some | 5) the | 9) much |
| 2) the | 6) little | 10) some |
| 3) much | 7) any | 11) a few |
| 4) many | 8) the | 12) a little |

4.

- | | |
|--------------------|----------------------|
| 1) I hope | 4) Thank you for |
| 2) I am writing to | 5) I look forward to |
| 3) I am confident | 6) Yours sincerely |

5.

1. b) 2. b) 3. a)

6.

- | | |
|-------------------|-------------------------|
| 1) more important | 6) most professional |
| 2) more detailed | 7) more efficient |
| 3) more quickly | 8) calmly / more calmly |
| 4) quieter | 9) more closely |
| 5) clearly | 10) more satisfied |

Семестр 3

Контрольная работа №3

1. Put the verbs in the correct form of passive voice.

- 1) The new bridge _____ (design) by a team of civil engineers last year.
- 2) Advanced materials _____ (use) in the construction of this building.
- 3) The prototype _____ (test) right now in the laboratory.
- 4) Safety standards _____ (update) regularly to protect workers.
- 5) The software _____ (develop) by the engineering department at the moment.
- 6) The machines _____ (repair) yesterday after the inspection.
- 7) The blueprints _____ (finalize) before the project started.
- 8) The renewable energy system _____ (install) next month.

- 9) Several new patents _____ (file) in recent years by the company.
- 10) The technical documentation _____ (prepare) by the engineering team every week.
- 11) The factory _____ (expand) now to increase production capacity.
- 12) The design _____ (approve) by the project manager last week.
- 13) The equipment _____ (clean) regularly to ensure safe operation.
- 14) The solar panels _____ (produce) in the factory since 2015.
- 15) The environmental impact of the project _____ (evaluate) by specialists currently.

2. Choose the correct modal verbs.

- 1) You (can / need / have) solve this equation by applying the quadratic formula.
- 2) Students (may / should / ought) check their answers carefully to avoid mistakes.
- 3) To pass the exam, you (must / can / would) study algebra and geometry thoroughly.
- 4) Advanced mathematics (might / ought / need) require a strong understanding of basic concepts.
- 5) You (must not / need not / have not) use a calculator during the test unless the teacher allows it.
- 6) Solving complex problems (must / can / should) help improve your critical thinking skills.
- 7) You (need / must / can) to practice solving equations every day to improve your skills.
- 8) Students (need / may / have to) submit their homework by Friday without exceptions.
- 9) If you want to understand calculus better, you (must / ought / should) to review your notes regularly.

3. Use the correct numeral (cardinal or ordinal).

- 1) She finished _____ (3) in the mathematics competition.
- 2) There are _____ (7) students in our study group.
- 3) The report was completed on the _____ (1) of May.
- 4) We solved _____ (5) problems during the lesson.
- 5) This is the _____ (10) chapter of the textbook.
- 6) He answered correctly to _____ (2) out of three questions.
- 7) Our professor has taught at the university for the _____ (10) year.
- 8) They collected _____ (35) data samples for the experiment.
- 9) The _____ (2) exercise was more difficult than the first.
- 10) I need _____ (1) more example to understand this theorem.

4. Read the text. Put the verbs in present perfect or present perfect continuous.

The Uses of Computers

Computers 1) (transform) many aspects of our lives, and their uses (expand) greatly over the years. People 3) (rely) on computers for work, education, communication, and entertainment. In many industries, computers 4) (increase) productivity by automating complex tasks and managing vast amounts of data. For instance, businesses 5) (use) computer programs to improve customer service and streamline operations.

Over the past decade, schools and universities 6) (incorporate) computer technology into their teaching methods. Teachers 7) (use) interactive software and online resources to enhance student learning. Additionally, many students 8) (complete) assignments and research using computers more than ever before.

In recent years, individuals 9) (use) computers continuously for remote work and virtual meetings, especially due to global changes in work culture. Moreover, scientists 10) (use) computers to analyze data and run simulations that 11) (advance) research in medicine, environmental science, and engineering. Overall, computers 12) (become) indispensable tools that 13) (reshape) how we live and work.

5. Choose the correct answer.

- 1) How have computers increased productivity in many industries?
 - a) By automating complex tasks and managing data
 - b) By replacing workers completely
 - c) By avoiding the use of technology
 - d) By limiting customer service

- 2) What role have computers played in education according to the text?
 - a) Teachers have stopped using computers
 - b) Teachers have been using interactive software and online resources
 - c) Students avoid using computers for assignments
 - d) Schools have banned all computer use

- 3) Which of the following is NOT mentioned as a use of computers in the text?
 - a) Remote work and virtual meetings
 - b) Data analysis and scientific simulations
 - c) Playing video games exclusively
 - d) Enhancing customer service

Ключи:

1.

- | | | |
|-----------------------|----------------------|------------------------|
| 1. was designed | 6. were repaired | 11. is being expanded |
| 2. are used | 7. were finalized | 12. was approved |
| 3. is being tested | 8. will be installed | 13. is cleaned |
| 4. are updated | 9. have been filed | 14. have been produced |
| 5. is being developed | 10. is prepared | 15. is being evaluated |

2.

- | | |
|----------------------|------------|
| 1. can | 6. can |
| 2. should | 7. need |
| 3. must | 8. have to |
| 4. might | 9. ought |
| 5. must not / cannot | |

3.

- | | |
|----------|----------------|
| 1) third | 6) two |
| 2) seven | 7) tenth |
| 3) first | 8) thirty-five |
| 4) five | 9) second |
| 5) tenth | 10) one |

4.

- | | |
|--------------------------------|-------------------------|
| 1) have transformed | 8) have been completing |
| 2) have expanded | 9) have been using |
| 3) have relied | 10) have used |
| 4) have increased | 11) have advanced |
| 5) have used / have been using | 12) have become |
| 6) have incorporated | 13) have reshaped |
| 7) have been using | |

5.

- 1) a) 2) b) 3) c)

Семестр 4

Контрольная работа №4

1. Put the verb in the correct form (Past Simple, Past Perfect or Past Perfect Continuous).

- 1) By the time the engineers _____ (arrive), the robot _____ (complete) its first task.
- 2) The company _____ (install) new automated systems before the production line _____ (shut down).
- 3) We _____ (test) the robotic arm for three hours when the power suddenly (go) out.
- 4) After the automation process _____ (start), the factory workers _____ (notice) an increase in efficiency.
- 5) The team _____ (develop) the software for months before they _____ (launch) the new robot.
- 6) When the manager _____ (check) the results, the machine already _____ (perform) hundreds of operations successfully.
- 7) The engineers _____ (work) on optimization before the robot _____ (break down).
- 8) By the time the technician _____ (arrive), the system _____ (already / fail) twice.
- 9) The robot _____ (complete) the assembly task when the supervisor _____ (call) for a review.
- 10) They _____ (upgrade) the control system just before the inspection _____ (begin).
- 11) While the robot _____ (operate), the developers _____ (make) adjustments to improve accuracy.
- 12) Before they _____ (receive) the new equipment, they _____ (use) the old machinery for years.
- 13) The automated process _____ (run) smoothly until the software bug _____ (cause) an error.
- 14) After the team _____ (install) the sensors, the robot _____ (start) detecting faults more precisely.
- 15) The engineer was explaining the system when the alarm suddenly _____ (go off).

2. Put the verb in the correct form to make conditional sentences.

- 1) You will get injured if you _____ (not/wear) protective equipment.
- 2) If the company provides proper training, workers _____ (work) more safely.
- 3) If workers _____ (use) hazardous materials incorrectly, they risk their health.
- 4) If the safety protocols were stricter, fewer injuries _____ (happen).
- 5) We _____ (improve) workplace safety if we had invested in better equipment last year.
- 6) If the company provided better safety equipment, the workers (feel) more protected.
- 7) If employees (wear) safety gear regularly, the number of workplace injuries would decrease.
- 8) If the management (conduct) safety training earlier, many accidents would have been prevented.
- 9) If the hazardous waste had been disposed of correctly, the contamination (not happen).

3. Choose the correct form (gerund or infinitive).

- 1) The team decided (start / to start / starting) the project next week.
- 2) She suggested (use / to use / using) agile methodology for better flexibility.
- 3) They plan (complete / to complete / completing) the initial phase by the end of the month.
- 4) Risk management involves (identify/ to identify / identifying) potential problems early.
- 5) He promised (provide / to provide / providing) all necessary resources for the project.
- 6) The project manager avoids (delegate / to delegate / delegating) tasks without clear instructions.
- 7) They made us (finish / to finish / finishing) the testing before the deadline.
- 8) (Communicate / To communicate / Communicating) effectively is essential for successful project management.
- 9) The team postponed (make / to make / making) a final decision until next week.
- 10) We aim (improve / to improve / improving) stakeholder engagement throughout the project.
- 11) She is good at (resolve / to resolve / resolving) conflicts within the team.
- 12) It's important (monitor / to monitor / monitoring) progress regularly.
- 13) The company agreed (invest / to invest / investing) more in training project managers.
- 14) He doesn't mind (work / to work / working) overtime when the deadline is near.
- 15) We let them (focus / to focus / focusing) on the critical tasks to meet our goals.

4. Fill in the gaps with the participles

allowing, ensuring, faced, having, identifying, motivating, providing, requiring (2)

Project Management in Electrical Engineering

Managing projects in electrical engineering requires a combination of technical expertise and leadership skills. 1) _____ a detailed project plan, managers can coordinate their teams effectively. Complex infrastructure projects often face unexpected challenges, 2) _____ teams to develop flexible solutions. 3) _____ with tight safety regulations, engineers must comply strictly to avoid accidents.

Communication is crucial, 4) _____ that all stakeholders are updated about progress and risks. Continuous monitoring of equipment performance, 5) _____ potential malfunctions early, helps prevent failures. Many projects involve integrating renewable energy sources, 6) _____ precise control and coordination.

Clients demand transparency, 7) _____ clear reports and documentation. By 8) _____ the team and resolving conflicts swiftly, project managers improve outcomes. In the end, successful

electrical engineering projects deliver safe, efficient, and sustainable solutions, 9) _____ the needs of society and industry.

5. Decide if the statements are true or false according to the text.

- 1) Project managers in electrical engineering do not need technical expertise to lead successfully.
- 2) Flexible solutions are needed because unexpected challenges often arise.
- 3) Safety regulations are sometimes overlooked in electrical engineering projects.
- 4) Early identification of equipment malfunctions helps to avoid failures.

Ключи:

1.

- | | |
|-----------------------------------|---------------------------------|
| 1) arrived / had completed | 9) had completed / called |
| 2) had installed / shut down | 10) had upgraded / began |
| 3) had been testing / went | 11) was operating / were making |
| 4) had started / noticed | 12) received / had used |
| 5) had been developing / launched | 13) had been running / caused |
| 6) checked / had performed | 14) had installed / started |
| 7) had been working / broke down | 15) went off |
| 8) arrived / had already failed | |

2.

- | | |
|------------------------|---------------------------|
| 1) don't wear | 6) would feel |
| 2) will work / work | 7) wore |
| 3) use | 8) had conducted |
| 4) would happen | 9) wouldn't have happened |
| 5) would have improved | |

3.

- | | |
|------------------|----------------|
| 1) to start | 9) making |
| 2) using | 10) to improve |
| 3) to complete | 11) resolving |
| 4) identifying | 12) to monitor |
| 5) to provide | 13) to invest |
| 6) delegating | 14) working |
| 7) finish | 15) focus |
| 8) Communicating | |

4.

- | | |
|----------------|---------------|
| 1) having | 6) requiring |
| 2) requiring | 7) providing |
| 3) faced | 8) motivating |
| 4) ensuring | 9) meeting |
| 5) identifying | |

5. 1) false 2) true 3) false 4) true

1. Read the article. Choose the best word (A, B or C) for each space (1–8).

HISTORY OF ELECTRICITY

The history of electricity is a fascinating journey that spans thousands of years. Ancient civilizations, such as the Greeks, first discovered that rubbing amber could attract light objects, a phenomenon known as static electricity. However, it was not until the 17th and 18th centuries that scientists began to systematically study electrical phenomena.

In 1600, English scientist William Gilbert coined the term "electricity" after studying the properties of amber. Later, in the 18th century, Benjamin Franklin conducted famous experiments with a kite and a key, proving that lightning was a form of electrical discharge. His work laid the foundation for understanding electricity as a natural force.

The 19th century marked rapid advancements, including Alessandro Volta's invention of the electric battery in 1800, which provided a steady source of electric current. Michael Faraday discovered electromagnetic induction in 1831, leading to the development of electric generators and transformers. These innovations made electricity more accessible and practical.

By the late 19th and early 20th centuries, electricity was transforming daily life with the invention of electric lights, telegraphs, and early electrical appliances. Today, electricity is essential worldwide, powering homes, industries, and modern technology. The journey from static sparks to a global energy network showcases human ingenuity and the importance of scientific exploration in shaping our modern world.

1. The study of electricity began with ancient civilizations and their observations of static _____.

- A. energy
- B. electricity
- C. resistance

William Gilbert coined the term "electricity" after studying the properties of _____.

Benjamin Franklin's experiments with a kite proved that lightning is a form of electrical _____.

Alessandro Volta invented the _____ in 1800, providing a steady source of electric current.

Michael Faraday discovered electromagnetic induction, leading to the development of electric _____.

By the late 19th century, electricity was used to power _____ like lights and telegraphs.

Today, electricity is _____ worldwide, supporting homes, industries, and technology.

The journey from static sparks to a global energy network highlights human _____ and scientific progress.

2. Put the verb in the correct form.

1. Throughout history, scientists **(make)** numerous discoveries that **(advance)** our understanding of electricity, laying the groundwork for modern technology.
2. By the end of the 19th century, electrical engineering **(become)** a well-established field, and researchers **(develop)** new devices that **(transform)** daily life.
3. Today, engineers **(focus)** on creating more efficient energy transmission systems, which **(play)** a crucial role in sustainable development initiatives.
4. Nikola Tesla **(experiment)** with alternating current systems, which **(prove)** to be more effective than direct current in transmitting electricity over long distances.
5. Modern electrical devices **(rely)** heavily on semiconductor technology, which **(revolutionized)** the electronics industry during the late 20th century.

3. Translate the sentences into Russian.

1. The discovery of static electricity fascinated ancient civilizations.
2. Benjamin Franklin's experiments proved that lightning is a natural electrical discharge.
3. Alessandro Volta invented the first electric battery, which revolutionized energy sources.
4. Electromagnetic induction is the principle behind electric generators and transformers.
5. Today, electricity is essential for powering homes, industries, and modern technology.

4. Prepare a written summary of the text in Task 1.

Ключи:

1.

i

2.

1. have made / have advanced
2. had become / developed / transformed
3. are focusing / play
4. experimented / proved
5. rely / revolutionized

Семестр 6**Контрольная работа № 6****1. Read the article. Choose the best answer for each question (1–8).**

Electrical and electronic engineering

Electrical and electronic engineering is a vital field that focuses on the development, design, and application of electrical and electronic systems. It plays a crucial role in modern society, enabling the functioning of everything from household appliances to complex communication networks. Electrical engineering primarily deals with the generation, transmission, and distribution of electricity, as well as power systems, electrical machines, and control systems. Electronic engineering, on the other hand, concentrates on the design and development of electronic devices, such as computers, smartphones, and integrated circuits.

Advances in this field have led to significant technological innovations, improving the quality of life and increasing efficiency in various industries. For example, renewable energy systems, such as solar and wind power, rely heavily on electrical engineers to develop sustainable energy solutions. Electronic engineers work on developing compact and powerful microprocessors that drive today's digital technology.

Both disciplines require a strong foundation in mathematics, physics, and computer science. Professionals in electrical and electronic engineering are responsible for creating safer, more reliable, and energy-efficient systems. As technology continues to evolve rapidly, the demand for skilled engineers in this field remains high, offering numerous opportunities for innovation and career growth.

1. Choose the correct answer:

What is the main purpose of electrical engineering?

- a) Developing software solutions
- b) Designing and managing power supply systems
- c) Manufacturing construction materials
- d) Inventing new types of fuel

2. **Select the statement that is true:**
Electronic engineering deals with the development and production of:
 - a) Electrical machines and devices
 - b) Civil engineering structures
 - c) Biological medicines
 - d) Automotive tires

3. **Which of the following is used in modern electrical systems for transmitting and distributing electricity?**
 - a) Mechanical gears and pulleys
 - b) Transformers and circuit breakers
 - c) Hydraulic pumps and valves
 - d) Optical fibers and lasers

4. **Which field is responsible for creating devices like computers and smartphones?**
 - a) Electrical engineering
 - b) Mechanical engineering
 - c) Electronic engineering
 - d) Civil engineering

5. **What kind of knowledge is essential for professionals in electrical and electronic engineering?**
 - a) Chemistry and biology
 - b) Mathematics, physics, and computer science
 - c) Literature and history
 - d) Architecture and urban planning

6. **Why is the demand for electrical and electronic engineers high today?**
 - a) Because of the increasing need for renewable energy and digital technology
 - b) Due to a decline in technological innovation
 - c) Because these fields are becoming less relevant
 - d) Due to the decrease in global population

7. **Which of the following is NOT a typical area of focus in electrical engineering?**
 - a) Power systems
 - b) Control systems
 - c) Software development for mobile apps
 - d) Electrical machines

8. **Which technological innovation is closely associated with electronic engineering?**
 - a) Solar panels
 - b) Microprocessors and integrated circuits
 - c) Hydraulic excavators
 - d) Wind turbines

2. **Change sentences with the direct speech into the reported speech.**
 - 1) He said, "Electric machines are very important for modern industry."
 - 2) The engineer said, "I can improve the efficiency of the system with new transformers."
 - 3) She said, "Modern electronic devices use microprocessors."

- 4) He asked, "Do you know how automatic control systems work?"
- 5) The student said, "Please explain how this electrical scheme works."

3. Match the sentences to make a dialogue.

<p>1) Engineer 1: Hi! Have you been working on the new circuit design for the microcontroller project? ____</p> <p>2) Engineer 1: That's great! Are you also considering the power supply stability for the microprocessors? ____</p> <p>3) Engineer 1: Have you tested the circuit with different load conditions yet? ____</p> <p>4) Engineer 1: Good idea. Are you using any specific software for the circuit simulation? ____</p>	<p>A. Engineer 2: Not yet, but I plan to run some simulations to check its performance under various scenarios.</p> <p>B. Engineer 2: Yes, I've been optimizing the PCB layout to reduce electromagnetic interference and improve signal integrity.</p> <p>C. Engineer 2: Yes, I'm using SPICE to analyze the circuit behavior before producing the prototype.</p> <p>D. Engineer 2: Absolutely, I'm implementing a voltage regulator and filter circuits to ensure consistent operation.</p>
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4. Translate the dialogue in Task 3 into Russian.

Ключи:

1.

1. b)
2. a)
3. b)

5. b)
6. a)
7. c)
8. b)

2.

1. He said that electric machines are very important for modern industry.
2. The engineer said that he could improve the efficiency of the system with new transformers.
3. She said that modern electronic devices use microprocessors.
4. He asked if I knew how automatic control systems work.
5. The student asked to explain how that electrical scheme worked.

B

D

A

Семестр 7

Контрольная работа № 7

1. Read the article. Choose the best answer for each question (1–8).

Alternative Energy Sources

As the world faces the challenges of climate change and dwindling fossil fuel reserves, the importance of alternative energy sources has grown significantly. These renewable and sustainable options help reduce greenhouse gas emissions and dependence on traditional energy

sources. One of the most popular alternative sources is solar energy, which harnesses sunlight using solar panels to generate electricity. Solar power is abundant, clean, and becoming more affordable worldwide.

Wind energy is another promising source, utilizing wind turbines to convert kinetic energy from the wind into electricity. It is especially effective in open and hilly areas with strong, consistent breezes. Hydropower, or water energy, captures the energy of flowing rivers or dams to produce electricity; it is one of the oldest and most established renewable sources.

Other alternatives include geothermal energy, which uses heat from beneath the Earth's surface, and biomass, which involves converting organic materials into energy. These sources offer sustainable and environmentally friendly options that can help reduce carbon emissions and promote energy independence. As technology advances, the efficiency and affordability of alternative energy sources are expected to improve, playing a crucial role in creating a greener and more sustainable future for our planet.

Solar energy is harnessed using _____ to generate electricity.

Wind energy is produced by _____ that convert wind movement into electrical power.

Hydropower relies on the movement of _____ to generate electricity.

4. **Geothermal energy uses heat from _____ beneath the Earth's surface.**
 - A. solar radiation
 - B. natural gas deposits
 - C. beneath the Earth's crust
5. **Why are alternative energy sources important for the environment?**
 - A. They increase greenhouse gas emissions.
 - B. They help reduce pollution and dependence on fossil fuels.
 - C. They are more expensive than traditional energy sources.
6. **Which renewable energy source is described as using the heat from beneath the Earth's surface?**
 - A. Solar energy
 - B. Geothermal energy
 - C. Biomass energy
7. **What is a common advantage of wind and solar energy?**
 - A. They are limited to specific geographic locations.
 - B. They produce pollution during operation.
 - C. They are abundant, clean, and becoming more affordable.
8. **How is biomass energy produced?**
 - A. By capturing the energy of flowing rivers.
 - B. By converting organic materials into energy.
 - C. By harnessing heat from underground reservoirs.

2. Match the halves to make sentences. Translate the sentences into Russian.

1. Solar panels convert	A. heat from beneath the Earth's surface.
2. Wind turbines are used to generate	B. sunlight into electricity.
3. Biomass energy is obtained by burning	C. energy that comes from the movement of water.
4. Hydropower is a form of	D. organic materials like wood or crop waste.
5. Geothermal energy is produced by	E. power from moving air.

3. Put the verb into the correct tense. Define the type of the Conditional sentence. Translate the sentences into Russian.

1. If we (install) more solar panels, we will produce more clean energy.
2. If more countries (invest) in wind turbines, they could reduce their dependence on fossil fuels.
3. If we (use) geothermal energy more extensively in the past, we wouldn't have relied so much on coal.
4. If governments promote biomass energy, farms (become) more sustainable.
5. If you (want) to support renewable energy, you should consider installing solar panels at home.

4. Read the text. Complete the table with the information from the text.

Nuclear energy is energy released from nuclear reactions, primarily through the splitting of heavy atomic nuclei like uranium-235. Its advantages are significant. Nuclear power plants provide a high level of energy production, independent of weather conditions, making them a reliable source of electricity. Furthermore, they use relatively little fuel compared to traditional sources like coal or gas, reducing greenhouse gas emissions and lessening environmental impact.

However, nuclear energy also has significant drawbacks. The most prominent is the risk of accidents at nuclear power plants, which can have catastrophic consequences, releasing harmful radiation into the environment. The long-term storage of radioactive waste is another major concern, requiring safe and secure methods for disposal over millennia. Finally, the potential for proliferation of nuclear materials for weapons use poses a serious threat to global security.

Advantages of nuclear energy	Disadvantages of nuclear energy
1.... ...	1.

Ключи:

- 1.
1. A.
2. B.
3. B.
4. C.

5. B.
6. B.
7. C.
8. B.
2. 1. B 2. E. 3. D 4.C 5.A
3. 1. Install (1st Conditional) 2. Invested (2nd Conditional) 3. Had used (3rd Conditional) 4. Will become (1st conditional) 5. Want (Zero Conditional)

Типовые вопросы к зачету:

Prepare a presentation and speak in detail on one of these topics:

Семестр 1

- 1) My University Department
- 2) The Role of Science in the Modern World
- 3) My Future Career

Семестр 2

- 1) Inventions and Technologies
- 2) Environmental Issues
- 3) Communication in the Digital Age

Семестр 3

- 1) Engineering As a Profession
- 2) The Role of Mathematics
- 3) Computers in Use

Семестр 4

- 1) Negotiation Strategies in Electrical Engineering Agreements
- 2) Online Resources for Electrical Engineering Professionals
- 3) Emerging Trends in Electrical Engineering

Семестр 5

- 1) The History of Electricity
- 2) Electrical Engineering as a Profession
- 3) Traditional and Renewable Energy Sources

Семестр 6

- 1) Virtual Engineering Teams and Remote Collaboration
- 2) Effective Presentations and Technical Reports in the Electrical Engineering
- 3) Project Management in the Electrical Sector

Типовые вопросы к зачету с оценкой:

Семестр 7

Prepare a presentation and speak in detail on one of these topics:

1) Presentation on Emerging Technologies in Electrical Engineering

Студенты готовят доклад и презентацию на английском языке о новых технологиях в сфере электроэнергетики и электротехники (например, возобновляемая энергетика, «умные» сети, энергосберегающие технологии).

2) Case Study: Successful Electrical Engineering Companies

Исследование и презентация на английском языке об историях успеха известных компаний в электроэнергетике, включая ключевые факторы их достижений и вклад в отрасль.

3) Designing a Website Content Plan for an Electrical Engineering Company

Разработка плана контента для веб-сайта компании в области электроэнергетики с описанием основных разделов, созданием приветственных текстов, описаний услуг (например, монтаж систем, проектирование сетей, обслуживание оборудования) и контактной информации, подготовка презентации о проделанной работе.

4) Impact of Electrical Engineering Innovations on Society

Подготовка презентации на английском языке о влиянии инноваций в электроэнергетике на общество, включая темы энергоэффективности, интеграции возобновляемых источников энергии, автоматизации и повышения надежности энергоснабжения.