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МЕТОДИЧЕСКИЕ РЕКОМЕНДАЦИИ

для выполнения тестов по тематике «Закон Ома для электрической цепи» для
студентов IV курса очного и заочного отделений 35.02.08.«ЭАСХ»

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Методические рекомендации для студентов IV курса очного и заочного отделений СПО: 2 –е изд., стер. –
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Рекомендации разработаны для студентов IV курса очного отделения. Данные контрольные работы являются формой итоговой аттестации «техника – электрика» по дисциплине «Иностранный язык».

Также предназначены для самостоятельного выполнения в межсессионный период студентами IV курса заочного отделения «техника – электрика». Рекомендовано студентам и преподавателям иностранных языков в учреждениях СПО.

Данная методическая рекомендация составлена на основании рабочей программы по Иностранному языку (английский) ГБОУ СПО БРАТТ, в соответствии с требованиями Федерального государственного образовательного стандарта к выпускнику СПО.

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Пояснительная записка

Основной целью изучения иностранного языка в средних специальных учебных заведениях является практическое владение иностранным языком для использования его в общении при решении бытовых, учебных и социокультурных задач.

Цель составления данной методической рекомендации – это проверка навыков и умений иноязычного письменного общения по специальности и сформированных компетенций в результате освоения дисциплины.

ОК 1 Понимать сущность и социальную значимость своей будущей профессии, проявлять к ней устойчивый интерес.

ОК 4. Осуществлять поиск и использование информации, необходимой для эффективного выполнения профессиональных задач, профессионального и личностного развития.

ОК 5 Использовать информационно-коммуникационные технологии в профессиональной деятельности.

ОК 8. Самостоятельно определять задачи профессионального и личностного развития, заниматься самообразованием, осознанно планировать повышение квалификации.

ОК 9. Быть готовым к смене технологий в профессиональной деятельности.

ОК 10. Исполнять воинскую обязанность, в том числе с применением полученных профессиональных знаний (для юношей).

Изучение иностранного языка на заочном отделении предполагает самостоятельную работу студентов в межсессионный период. Преподаватель выполняет функции консультанта и осуществляет контроль и оценку знаний.

Рекомендация предназначено для студентов очного и заочного отделений среднетехнических учебных заведений, по специальности техник-электрик и охватывает практические курсы английского языка по грамматике и специальной лексике. Состоит из введения, 20 вариантов контрольной работы, словаря наиболее сложных технических терминов. Для студентов очного отделения данное пособие используется в качестве итогового контроля знаний по специальности на IV курсе.

Введение

Перевод - выражение средствами другого языка всего того, что уже выражено или выражается средствами языка оригинала.

Овладеть же переводом можно только на базе чтения, письма, аудирования и говорения. Для письменного перевода с русского на английский надо уметь писать по-английски. Для письменного перевода текста с английского языка на русский надо уметь читать по-английски.

Для устного перевода английской речи на русский надо уметь аудировать, т.е. воспринимать английскую речь на слух.

Для устного перевода с русского на английский надо уметь говорить по-английски.

Отсюда следует очень важный вывод: недостаточное владение любым другим видом языковой деятельности неизбежно отразится на качестве перевода. И с другой стороны, в процессе овладения переводом и тренировки в нем неизбежно улучшается качество владения всеми другими видами языковой деятельности, т.е. качество владения иностранным языком.

Письменный технический перевод с иностранного языка на русский или с русского на иностранный выполняется с использованием словарей, общих и специальных, справочников и специальной литературы на русском и иностранном языках, что значительно облегчает труд переводчика.

Если переводить английское предложение с его твердым порядком слов без перегруппировки, то получается так называемый дословный перевод. Дословный перевод может быть правильным, если все английские слова в предложении имеют эквиваленты в русском языке и структура предложения имеет полное соответствие в русском языке.

Но дословный перевод возможен не всегда, и от дословного перевода, однако следует отличать недопустимый в практике перевода буквальный перевод, т.е. простой механический перевод слов иностранного текста без учета их грамматических и логических связей.

Технический термин - это слово или словосочетание, которое может иметь отличное от обычного значение в зависимости от области науки и техники, в которой оно употребляется. Термин может быть простым, состоящим из одного слова *switch* - «выключатель» и сложным термином словосочетанием *automatic-switch* «автоматический выключатель». Например, слово *face* как существительное имеет обычное значение «лицо»; широкое техническое значение его - «поверхность»; в геометрии его значение - «грань»; в строительном деле «фасад», «облицовка»; в горном деле «забой», «лава». Но как это естественно для английского языка то, же слово *face* может выступать и как глагол; в этом случае основное значение его обычное значение - «стоять напротив чего-либо»; в металлообработке это термин, означающий «шлифовать»; в строительном деле - «отделывать», «облицовывать», «покрывать».

Соблюдение следующих правил может быть при переводе терминов:

1. В специальном тексте каждое слово, даже очень хорошо знакомое, может оказаться термином. Так. В морском деле *man-of-war* значит не «солдат», а «военный корабль»; в тексте по механике *no play is admitted* надо переводить не «играть нельзя», а «люфт не допускается»; в тексте по экономике выражение *staple sorts*, даже если речь идет о сырье о текстильной промышленности, I может значить не «штапельные сорта», а «основные экспортные сорта»: *shoe* «колодка» в описании тормозной системы, для электропоезда - «лыжа токоприемника», для гусеницы - «звено»: *dead* - это «обесточенный» в электромеханике, «глухой», т.е. «несквозной» в машиностроении и строительстве; «использованный», когда речь идет о растворах, газе и т.п. Переводя литературу, особенно о малознакомой тематике, надо всегда помнить об этой многозначности. Отсюда следует второе правило:

Пользуйтесь при переводе специальными техническими словарями. Следует считать неразумной попытку переводить без словаря; это выглядело бы также странно, как если

бы мастер пытался научиться работать без инструмента. Как бы ни была велика память переводчика, он может натолкнуться на незнакомый или малознакомый термин или известный ему термин в совершенно новом значении. При многозначности слова следует брать то его значение, которое принадлежит соответствующей области техники. Может оказаться, что ни одно из значений слова, найденных вами в словаре, не подходит. Это значит, что некоторые значения слова не зафиксированы в словаре. В таком случае вывести из затруднения может хорошее чувство языка, так называемая языковая догадка, но в первую очередь - понимание того, о чем идет речь. Поэтому знакомство с соответствующей отраслью техники, хотя бы по популярным пособиям, или консультация специалиста, имеет огромное значение для правильного перевода.

Транслитерация.

Метод транслитерации передача букв английского языка посредством букв русского языка находит широкое распространение в физике, химии, медицине, космонавтике: *радар. голография, грейдер*

Создание новых терминов путем конверсии.

а) примеры превращения существительных в глаголы:

<i>Существительное</i>	<i>Глагол</i>	<i>Новое значение</i>
Doctor – врач	to doctor	ремонттировать
Motor - двигатель	to motor	1. механизировать 2. работать как двигатель

б) примеры превращения глаголов в существительные:

<i>Глагол</i>	<i>Существительное</i>	<i>Новое значение</i>
To spin off - раскрутить	spinoff	сопутствующий (побочный) результат
To throw away – выбросить	throwaway	бесплатная рекламная брошюра

Создание новых терминов при помощи префиксов и суффиксов

а) префиксы

inter-: interaction	взаимодействие
interface	интерфейс, сопряжение

б) новые суффиксы -ry, -ship, -wise:

circuitry	схемное решение, комплекс схем
workmanship	мастерство. квалификация
percentagewise	считая в процентах

Создание новых терминов при помощи словосложения *motel* - мотель

(автомашина+гостиница) = *motor+hotel: escalator* - эскалатор (поднимающий элеватор) = *escalating elevator*.

Методические указания по выполнению контрольной работы

Для того чтобы выполнить контрольные задания нужно:

Усвоить специальный лексический материал, перевести текст (с английского языка на русский) при помощи англо-русского словаря и конспектов сделанных во время семинаров;

Ответить на вопросы после текста, которые задаются с целью проверки понимания;

Выполнить упражнения:

а) на повторение грамматического материала;

б) на перевод с русского языка на английский язык;

Каждая работа выполняется в отдельной тетради школьного формата или на листах А4 формата. Следует пронумеровать страницы и оставить на них поля не менее 3 см. для замечаний преподавателя.

На обложке тетради или листа 4 должно быть выполнено титульное оформление утвержденного образца: шифр, специальность, если она не отражена в шифре, фамилия, отчество студента, предмет и номер работы.

Решение задач желательно располагать в порядке номеров, указанных в задании, номера задач следует указывать перед условием.

Условия заданий должны переписываться полностью в контрольную тетрадь или на лист.

Если в работе допущены недочёты и ошибки, то студент должен выполнить все указания преподавателя, сделанные в рецензии.

Контрольные работы должны быть выполнены в срок (в соответствии с учебным планом-графиком). В период сессии работы на проверку не принимаются.

Работа, выполненная не по своему варианту, не учитывается и возвращается студенту без оценки.

Методическая разработка содержит 10 вариантов контрольных работ. Номер варианта выбирается по двум последним цифрам шифра (номера личного дела) и определяется по таблице распределения контрольных работ. Например, студенты, имеющие шифры 41,42 получают варианты 2, 3. Студенты, у которых шифры от 1 до 9, должны добавить впереди цифру «0», т. е. они получают вариант 01, 02, 03,.....,09.

Таблица распределения заданий по вариантам:

Предпоследняя цифра шифра	Последняя цифра шифра									
	0	1	2	3	4	5	6	7	8	9
0	11	12	13	14	15	16	17	18	19	20
1	1	2	3	4	5	6	7	8	9	10
2	20	19	18	17	16	15	14	13	12	11
3	10	9	8	7	6	5	4	3	2	1
4	11	12	13	14	15	16	17	18	19	20
5	2	3	4	5	6	7	8	9	10	11
6	12	13	14	15	16	17	18	19	20	1
7	3	4	5	6	7	8	9	10	11	12
8	9	8	7	6	5	4	3	2	1	8
9	11	12	13	14	15	16	17	18	19	20

Контрольная работа №1

The test on the subject "Direct Electric Current"

I. Underline the correct answer:

1 . For current emergence in the conductor it is necessary, that...

- its free charges in a certain direction were affected by force.
- its free charges were affected by forces.
- its free charges were affected by constant force.

2 . Charges in each point of the conductor are affected by force, if in it...

- there is an electric field.
- there are electric dipoles.

3 . The chain from a source of current, the ampermeter and a lamp is collected. Whether the ampermeter indication if to include in a chain consistently still the same lamp will change?

- Will decrease as resistance of a chain increased.
- Won't change, as at consecutive connection current
- on all sites of a chain it is identical.
- Will increase as resistance of a chain decreased.
- Will decrease as resistance of a chain decreased.

4 . In a chain from a source of current, the ampermeter and a lamp parallel to a lamp connect one more, possessing the same resistance. Whether the ampermeter indication will change thus?

- Will increase twice.
- The indication won't change.
- Will decrease twice.

Ohm's law for the chain section

1. How does the current in a conductor depend on its resistance?

- a) It is directly proportional to the resistance of the conductor
- b) the lower the resistance, the greater the current
- c) the current In the conductor is inversely proportional to the resistance
- d) It does not depend on resistance

2. Dependence of current strength on what physical quantities establishes Ohm's law?

- a) Amount of electricity and time
- b) Voltage and resistance
- C) Resistance and the amount of electricity
- d) Voltage and quantity of electricity

Контрольная работа №2

The test on the subject "Direct Electric Current"

I. Underline the correct answer:

1 . What actions of electric current are observed at a current transmission through the metal conductor?

- Heating and magnetic action, isn't present chemical action.
- Heating, chemical and magnetic actions.
- Chemical and magnetic actions, heating isn't present.
- Heating and chemical action, isn't present magnetic action.
- Only magnetic action.

2 . Two conductors of identical length are made of one material. What of the ratios given below for electric resistance of the first R_1 and the second R_2 of conductors fairly if the area of cross section of the first conductor is 4 times more than the second?

- $R_2 = 4R_1$,
- $R_1 = R_2$,
- $R_1 = 4R_2$,
- The task has no unambiguous decision.
- Among the provided answers there is no true.

3 . To that the general resistance of an electric chain, if resistance of each resistor of equally 4 Ohms is equal?

- 10 Ohms,
- 16 Ohms,
- 12 Ohms,
- 8 Ohms,
- 4 Ohms,
- 1 Ohm,

Ohm's law for the chain section

1. What is the formula of Ohm's law?

- a) $I = q/t$
- b) $I = U/R$
- c) $U = A/q$
- d) $N = A/t$

2. What formulas for determining voltage and resistance follow from Ohm's law?

- a) $U = IR$ and $R = U/I$
- b) $G = W / C$ and $K = G/W$
- c) $U = I/R$ and $R = I/U$
- d) $U = IR$ and $R = I/U$

Контрольная работа №3

The test on the subject "Direct Electric Current"

I. Underline the correct answer:

1. What letter designates current and in what units is measured?

- I; ampere (And).
- I; volt (In).
- U; ampere (And).
- U; volt (In).
- R; ohm (Ohm).

2. What letter designates a potential difference (tension) and in what units is measured?

- U; volt (In).
- I; volt (In).
- U; ampere (And).
- I; ampere (And).
- R; ohm (Ohm).

3. What letter designates resistance of the conductor and this size is measured in what units?

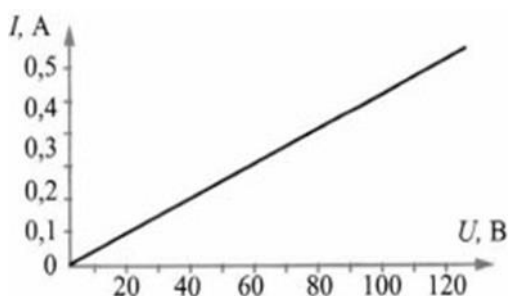
- R; ohm (Ohm).
- I; volt (In).
- U; ampere (And).
- U; volt (In).
- R; volt (In).

4. By what device it is possible to measure a potential difference in an electric chain and how this device turns on in an electric chain?

- Voltmeter, in parallel.
- Ampermeter, consistently.
- Ampermeter, in parallel.
- Voltmeter, consistently.

Ohm's law for the chain section

1. The figure shows a graph of the dependence of the current in the conductor from the voltage at its ends. Determine the resistance of the conductor.



- a) 20 Ohms
- b) 200 Ohms
- c) 2 com
- d) 2 Ohms

Контрольная работа № 4

The test on the subject "Direct Electric Current"

I. Underline the correct answer:

1. By what device it is possible to measure the current of a site of an electric chain and how this device turns on in an electric chain?

- Ampermeter, consistently.
- Ampermeter, in parallel.
- Voltmeter, consistently.
- Voltmeter, in parallel.

2. At increase in temperature of the metal conductor its resistance to electric current...

- increases.
- decreases.
- doesn't change.

3. Under the influence of what forces electric charges in an external electric chain move?

- Under the influence of forces of electric field.
- Under the influence of third-party forces.
- Under the influence of magnetic forces.

4. Under the influence of what forces electric charges in a current source move?

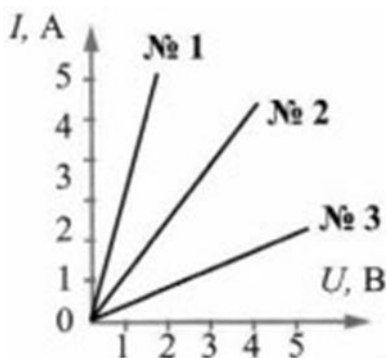
- Under the influence of not electric forces.
- Under the influence of electric forces.

5. How practically to determine the EMF of a source of current?

- By means of the voltmeter attached to poles of a source of current at the opened external chain.
- By means of the voltmeter attached parallel to the resistor in an external chain.
- By means of the voltmeter and the ampermeter, attached to the resistor in an external chain.

Ohm's law for the chain section

1. Which of the conductors for which the graphs of the current-voltage dependence are shown in the figure has the greatest resistance? Will it change as the voltage increases?



- a) No. 1; resistance will increase
- b) No. 2; will decrease
- c) No. 3; will not change

Контрольная работа № 5

The test on the subject "Direct Electric Current"

I. Underline the correct answer:

1 . What letter designates resistance of the conductor and this size is measured in what units?

- R; ohm (Ohm).
- I; volt (In).
- U; ampere (And).
- U; volt (In).
- R; volt (In).

2 . By what device it is possible to measure a potential difference in an electric chain and how this device turns on in an electric chain?

- Voltmeter, in parallel.
- Ampermeter, consistently.
- Ampermeter, in parallel.
- Voltmeter, consistently.

3 . By what device it is possible to measure the current of a site of an electric chain and how this device turns on in an electric chain?

- Ampermeter, consistently.
- Ampermeter, in parallel.
- Voltmeter, consistently.
- Voltmeter, in parallel.

4. At increase in temperature of the metal conductor its resistance to electric current...

- increases.
- decreases.
- doesn't change.

Ohm's law for the chain section

1. The resistance of the heating element of the iron is 88 Ohms, the voltage in the power supply is 220 V. What is the current in the heating element?

- a) 0.25 A
- b) 2.5 A
- c) 25 A
- d) 250 A

2. The resistance of the conductor is 70 Ohms, the current in it is 6 mA. What is the tension at its ends?

- a) 420 V
- b) 42 In
- c) 4.2 V
- g) 0.42 V

Контрольная работа № 6

Production, transfer and use of electric energy.

I. Underline the correct answer:

1 . For food of the majority of radio schemes it is required...

A . direct current. B... alternating current.

2 . In electric motors there is a transformation...

A. ... energy of electric field in energy of a magnetic field.

B... electric energy in the mechanical.

V... electric energy in the internal.

G... mechanical energy in the electric.

D... internal energy of plasma in the electric.

3 . Sliding contacts on rotors of industrial generators serve for...

A. ... weakening of parasitic vortex currents (Foucault's currents).

B... that it was possible to use low-speed primary engines.

V... current supply to a rotor or branch it in an external chain.

G... increases in a stream of magnetic induction, and, therefore, and amplitudes of the induced EMF.

4 has those advantages that tension and current it is possible to transform without loss almost capacities over a wide range.

A. ... direct current. B... alternating current.

Ohm's law for the chain section

1. Find the resistance of the spiral, the current in which 0.5 A, and the voltage at its ends 120 V.

a) 240 Ohms

b) 24 Ohms

c) 60 Ohms

d) 600 Ohms

2. To experimentally determine the resistance of the conductor included in the circuit, what values need to be measured? What instruments?

a) Voltage and quantity of electricity; voltmeter and galvanometer

b) amperage and amount of electricity; ammeter and galvanometer

c) Voltage and current; voltmeter and ammeter

3. Does the resistance of the conductor depend on the voltage and current?

a) does not depend on voltage, but depends on current strength

b) does not depend on the current, but depends on the voltage

c) does not depend on voltage or current

d) Depends on both voltage and current

Контрольная работа №7

Production, transfer and use of electric energy.

I. Underline the correct answer:

1. In induction generators there is a transformation...

A. ... electric energy in the internal.

B... electric energy in the mechanical.

V... mechanical energy in the electric.

G... energy of electric field in energy of a magnetic field.

D... internal energy of plasma in the electric.

2. In the induction generator the inductor and an anchor have iron cores for...

A. ... weakening of parasitic vortex currents (Foucault's currents).

B... current supply to a rotor or branch it in an external chain.

V... increases in a stream of magnetic induction, and, therefore, and amplitudes of the induced EMF.

G... that it was possible to use low-speed primary engines.

3. If to increase the frequency of alternating current, resistance of the chain containing the condenser...

And. ... increases. B... decreases. V... won't change.

4. How the rotating part of the generator is called?

A . Rotor. B . Brushes. V . Stator. G . Sliding contacts.

Ohm's law for a closed circuit

1. Calculate the current in a circuit containing a current source with an EMF of 4.5 V and an internal resistance of 1 Ohm when connected to an external resistor circuit with a resistance of 3.5 Ohms.

a) 1 A

b) 2 A

c) 0.5 A

2. Find the EMF of the current source (Fig. 17), if $R_1 = 1 \text{ Ohm}$, $R_2 = 4 \text{ Ohm}$, and the current in the circuit $I = 1 \text{ A}$. the Internal resistance of the current source can be neglected.

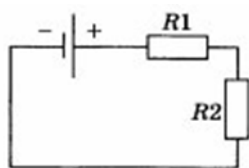


Рис. 17

a) 6 In

b) 5 In

c) 4 In

Контрольная работа № 8

Production, transfer and use of electric energy.

I. Underline the correct answer:

1. For food of a rotor of the generator of alternating current use...

A. ... direct current. B... alternating current.

2. At the raising transformer...

A. ... $k < 1$. B... $k > 0$. V... $k = 0$. G... $k < 0$. D... $k = 1$. E. ... $k > 1$.

3. Increasing by means of the transformer tension by 4 times

A. ... by 4 times we increase current. B. ... by 4 times we lower current.

4. In an oscillatory contour there is a transformation...

A. ... electric energy in the internal.

B... mechanical energy in the electric.

V... energy of electric field in energy of a magnetic field.

G... internal energy of plasma in the electric.

D... electric energy in the mechanical.

5. To reduce the frequency of alternating current, resistance of the chain containing the coil of inductance...

A. ... increases. B... decreases. V... won't change.

Ohm's law for a closed circuit

1. Calculate the current flowing through the resistor R_3 , if the resistor resistance $R_1 = R_2 = R_3 = 6 \text{ Ohms}$ (Fig. 18), and the EMF of the current source $\varepsilon = 18 \text{ V}$. the Internal resistance of the current source can be neglected.

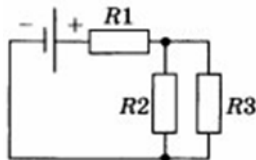


Рис. 18

a) 2 A

b. 0.5 A

c) 1 A

2. When connecting the bulb to the battery cells with EMF 4, 5 Voltmeter showed the voltage on the bulb 4 V, and the ammeter-current 0.25 A. What is the internal resistance of the battery?

A. 2 Ohms

B. 4 Ohms

V. 0.5 Ohm

Контрольная работа № 9

Production, transfer and use of electric energy.

I. Underline the correct answer:

1. In an oscillatory contour there is a transformation...

A. .electric energy in the internal.

B... mechanical energy in the electric.

V... energy of electric field in energy of a magnetic field.

G... internal energy of plasma in the electric.

D... electric energy in the mechanical.

2 . To reduce the frequency of alternating current, resistance of the chain containing the coil of inductance...

A. ... increases. B... decreases. V... won't change.

3. For reduction of losses of power in power lines...

A. ... reduce current, increasing tension.

B... increase both the current, and tension.

V... increase current, reducing tension.

G... increase the section of wires, reducing R.

4. At a resonance in an electric chain of alternating current sharply increases

A frequency. B amplitude current. C ... resistance.

Ohm's law for a closed circuit

1. In the circuit shown in figure 19, the rheostat slider is moved up. How did the ammeter and voltmeter readings change?

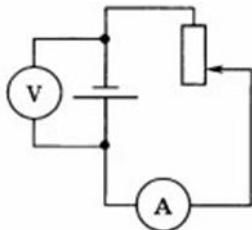


Рис. 19

a) the testimony of both of the devices has decreased.

b) the Testimony of both devices has increased.

c) the ammeter reading is increased, the voltmeter dropped.

2. Determine the current in the circuit containing a current source with an EMF equal to 6 V and an internal resistance of 0.5 Ohms when connecting a resistor in the external circuit with a resistance of 2.5 Ohms.

a) 1 A

b) 2 A

c) 0.5 A

Контрольная работа № 10

Production, transfer and use of electric energy.

I. Underline the correct answer:

1. For food of the majority of radio schemes it is required...

A ... direct current. B... alternating current.

2. In electric motors there is a transformation...

A. . energy of electric field in energy of a magnetic field.

B... electric energy in the mechanical.

V... electric energy in the internal.

G... mechanical energy in the electric.

D... internal energy of plasma in the electric.

3. Increasing by means of the transformer tension by 4 times

A. by 4 times we increase current. B. by 4 times we lower current.

4. In an oscillatory contour there is a transformation...

A. ..electric energy in the internal.

B... mechanical energy in the electric.

V... energy of electric field in energy of a magnetic field.

G... internal energy of plasma in the electric.

D... electric energy in the mechanical.

5. To reduce the frequency of alternating current, resistance of the chain containing the coil of inductance...

A. ... increases. B... decreases. V... won't change.

Ohm's law for a closed circuit

1. Find the EMF of the current source (Fig. 20), if $R_1 = 2$ Ohms, $R_2 = 3$ Ohms, and the current in the circuit $I = 0.5$ A. the Internal resistance of the current source can be neglected.

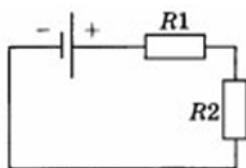


Рис. 20

a) Of 2.5 In

b) 2 In

c) 3 In

2. In a conductor with a resistance of 2 Ohms connected to a current source with an EMF of 1.1 V, the current strength is 0.5 A. What is the current strength when the current source is short-circuited?

a) 6A

b) 5.5 A

c) 7.5 A

Контрольная работа № 11

The test on the subject "Direct Electric Current".

I. Underline the correct answer:

1 . For current emergence in the conductor it is necessary, that...

- its free charges in a certain direction were affected by force.
- its free charges were affected by forces.
- its free charges were affected by constant force.

2 . Charges in each point of the conductor are affected by force, if in it...

- there is an electric field.
- there are electric dipoles.

3 . The chain from a source of current, the ampermeter and a lamp is collected. Whether the ampermeter indication if to include in a chain consistently still the same lamp will change?

- Will decrease as resistance of a chain increased.
- Won't change, as at consecutive connection current
- on all sites of a chain it is identical.
- Will increase as resistance of a chain decreased.
- Will decrease as resistance of a chain decreased.

4 . In a chain from a source of current, the ampermeter and a lamp parallel to a lamp connect one more, possessing the same resistance. Whether the ampermeter indication will change thus?

- Will increase twice.
- The indication won't change.
- Will decrease twice.

Ohm's law for a closed circuit

1. Calculate the current flowing through the resistor R_3 , if the resistor resistance $R_1 = R_2 = R_3 = 4 \text{ Ohms}$ (Fig. 21), and the EMF of the current source $\varepsilon = 9 \text{ V}$. the Internal resistance of the current source can be neglected.

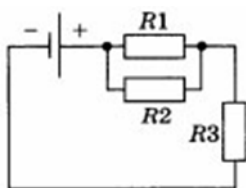


Рис. 21

- a) 0,2 A
- b) 2,5 A
- c) 1,5 A

2. Calculate the current in a circuit containing a current source with an EMF of 4.5 V and an internal resistance of 1 Ohm when connected to an external resistor circuit with a resistance of 3.5 Ohms.

- a) 1 A
- b) 2 A
- c) 0.5 A

Контрольная работа № 12

The test on the subject "Direct Electric Current"

I. Underline the correct answer:

1 .What actions of electric current are observed at a current transmission through the metal conductor?

- Heating and magnetic action, isn't present chemical action.
- Heating, chemical and magnetic actions.
- Chemical and magnetic actions, heatings aren't present.
- Heating and chemical action, isn't present magnetic action.
- Only magnetic action.

2 . Two conductors of identical length are made of one material. What of the ratios given below for electric resistance of the first R_1 and the second R_2 of conductors fairly if the area of cross section of the first conductor is 4 times more than the second?

- $R_2 = 4R_1$,
- $R_1 = R_2$,
- $R_1 = 4R_2$,
- The task has no unambiguous decision.
- Among the provided answers there is no true.

3 . To that the general resistance of an electric chain, if resistance of each resistor of equally 4 Ohms is equal?

- 10 Ohms,
- 16 Ohms,
- 12 Ohms,
- 8 Ohms,
- 4 Ohms,
- 1 Ohm,

Ohm's law for the chain section

1. What is the formula of Ohm's law?

- a) $I = q/t$
- b) $I = U/R$
- c) $U = A/q$
- d) $N = A/t$

2. What formulas for determining voltage and resistance follow from Ohm's law?

- a) $U = IR$ and $R = U/I$
- b) $G = W / C$ and $K = G/W$
- c) $U = I/R$ and $R = I/U$
- d) $U = IR$ and $R = I/U$

Контрольная работа № 13

The test on the subject "Direct Electric Current"

I. Underline the correct answer:

1. In induction generators there is a transformation...

- A. . electric energy in the internal.
- B... electric energy in the mechanical.
- V... mechanical energy in the electric.
- G... energy of electric field in energy of a magnetic field.
- D... internal energy of plasma in the electric.

2. In the induction generator the inductor and an anchor have iron cores for...

- A. . weakening of parasitic vortex currents (Foucault's currents).
- B... current supply to a rotor or branch it in an external chain.
- V... increases in a stream of magnetic induction, and, therefore, and amplitudes of the induced EMF.
- G... that it was possible to use low-speed primary engines.

3. If to increase the frequency of alternating current, resistance of the chain containing the condenser...

And. ... increases. B... decreases. V... won't change.

4. How the rotating part of the generator is called?

A . Rotor. B . Brushes. V. Stator. G . Sliding contacts.

Ohm's law for the chain section

1. How does the current in a conductor depend on its resistance?

- a) It is directly proportional to the resistance of the conductor
- b) the lower the resistance, the greater the current
- c) the current In the conductor is inversely proportional to the resistance
- d) It does not depend on resistance

2. Dependence of current strength on what physical quantities establishes Ohm's law?

- a) Amount of electricity and time
- b) Voltage and resistance
- C) Resistance and the amount of electricity
- d) Voltage and quantity of electricity

3. Find the resistance of the spiral, the current in which 0.5 A, and the voltage at its ends 120 V.

- a) 240 Ohms
- b) 24 Ohms
- c) 60 Ohms
- d) 600 Ohms

The test on the subject "Direct Electric Current"

I. Underline the correct answer:

1. For current emergence in the conductor it is necessary, that...

- its free charges in a certain direction were affected by force.
- its free charges were affected by forces.
- its free charges were affected by constant force.

2. Charges in each point of the conductor are affected by force, if in it...

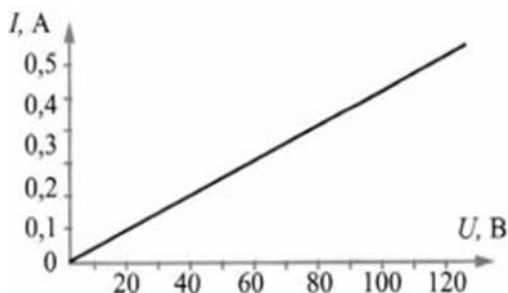
- there is an electric field.
- there are electric dipoles.

3. The chain from a source of current, the ampermeter and a lamp is collected. Whether the ampermeter indication if to include in a chain consistently still the same lamp will change?

- Will decrease as resistance of a chain increased.
- Won't change, as at consecutive connection current
- on all sites of a chain it is identical.
- Will increase as resistance of a chain decreased.
- Will decrease as resistance of a chain decreased.

Ohm's law for the chain section

1. The figure shows a graph of the dependence of the current in the conductor from the voltage at its ends. Determine the resistance of the conductor.



- a) 20 Ohms
- b) 200 Ohms
- c) 2 com
- d) 2 Ohms

2. The resistance of the heating element of the iron is 88 Ohms, the voltage in the power supply is 220 V. What is the current in the heating element?

- a) 0.25 A
- b) 2.5 A
- c) 25 A
- d) 250 A

Контрольная работа № 15

I. Underline the correct answer:

1. The radio transmitter radiates electromagnetic waves with a length λ . How it is necessary to change inductance of a fluctuation contour of a radio transmitter that it radiated electromagnetic waves with a length $\lambda/2$?

A . Will increase twice. B. Will increase by 4 times. V. Will reduce twice. G. Will reduce by 4 times.

2. How the frequency of electromagnetic fluctuation in a contour of L-C, if inductance of the coil increase by 4 times will change?

D . Will increase twice. B. Will reduce twice. V. Will increase by 4 times. G. Will reduce by 4 times.

3. We will consider two cases of movement of an electron:

a) the electron evenly moves on a circle; b) the electron makes oscillating motions. In what cases there is a radiation the elektromagnitic of waves?

And. and. B. Century and and. G. Ni and.

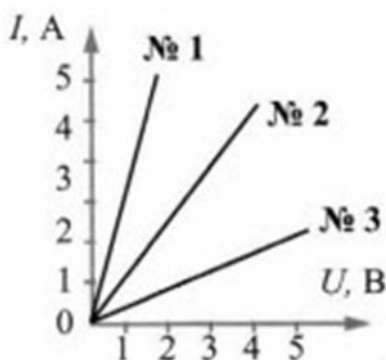
4. Arrange in ascending order of wave length electromagnetic radiations of the different nature:

1) ultra-violet radiation of the Sun, 2) radiation of power lines,
3) radiation of TV stations.

A. 1,2,3 . B. 3,2,1. C 2,1,3. G 1,3,2.

Ohm's law for the chain section

1. Which of the conductors for which the graphs of the current-voltage dependence are shown in the figure has the greatest resistance? Will it change as the voltage increases?



- a) No. 1; resistance will increase
- b) No. 2; will decrease
- c) No. 3; will not change

2. The resistance of the conductor is 70 Ohms, the current in it is 6 mA. What is the tension at its ends?

- a) 420 V
- b) 42 In
- c) 4.2 V
- g) 0.42 V

Контрольная работа № 16

I. . Underline the correct answer:

1 . Electromagnetic waves were

A . Are opened experimentally by Maxwell. B. Predicted theoretically in Hertz.

B . Are opened experimentally by Hertz. G. Predicted theoretically Faraday.

2 . What mutual orientation of vectors, in an electromagnetic wave?

A . All three vectors are mutually perpendicular.

B . The vector coincides with a vector and is perpendicular to a vector.

B . The vector coincides with the direction of a vector and is perpendicular to a vector.

G . The vector coincides with the direction of a vector and is perpendicular to a vector.

3 . At distribution in vacuum of an electromagnetic wave there is a transfer:

a) energy; b) impulse.

What statement is correct?

A . Only and. B. Tolko. Century and and. G. Ni and.

4 . By what expression the period the elektromagnitic of fluctuations in the contour consisting of a kondensator of capacity With and the coil of inductance L is defined?

A. \sqrt{LC} . B. $\frac{1}{\sqrt{LC}}$. B. $2\pi\sqrt{LC}$. Г. $\frac{1}{2\pi\sqrt{LC}}$.

Ohm's law for the chain section

2. To experimentally determine the resistance of the conductor included in the circuit, what values need to be measured? What instruments?

a) Voltage and quantity of electricity; voltmeter and galvanometer

b) amperage and amount of electricity; ammeter and galvanometer

c) Voltage and current; voltmeter and ammeter

3. Does the resistance of the conductor depend on the voltage and current?

a) does not depend on voltage, but depends on current strength

b) does not depend on the current, but depends on the voltage

c) does not depend on voltage or current

d) Depends on both voltage and current

1. The resistance of the heating element of the iron is 88 Ohms, the voltage in the power supply is 220 V. What is the current in the heating element?

a) 0.25 A

b) 2.5 A

c) 25 A

d) 250 A

Контрольная работа № 17

I. Underline the correct answer:

1. At distribution in vacuum of an electromagnetic wave there is a transfer:

a) energy; b) impulse. What statement is correct?

A . Only and. B. Tolko. Century and and. G. Ni and.

2. By what expression the period the elektromagnitic of fluctuations in the contour consisting of a kondensator of capacity With and the coil of inductance L is defined?

A. \sqrt{LC} . Б. $\frac{1}{\sqrt{LC}}$. В. $2\pi\sqrt{LC}$. Г. $\frac{1}{2\pi\sqrt{LC}}$.

3. The radio transmitter radiates electromagnetic волны with a length λ . How it is necessary to change inductance of a fluctuation contour of a radio transmitter that it radiated electromagnetic waves with a length $\lambda/2$?

A . Will increase twice. B. Will increase by 4 times. V. Will reduce twice. G. Will reduce by 4 times.

4. How the frequency of electromagnetic fluctuation in a contour of L-C, if inductance of the coil увеличить by 4 times will change?

D . Will increase twice. B. Will reduce twice. V. Will increase by 4 times. G. Will reduce by 4 times.

Ohm's law for a closed circuit

1. Calculate the current in a circuit containing a current source with an EMF of 4.5 V and an internal resistance of 1 Ohm when connected to an external resistor circuit with a resistance of 3.5 Ohms.

- a) 1 A
- b) 2 A
- c) 0.5 A

2. Find the EMF of the current source (Fig. 17), if $R_1 = 1 \text{ Ohm}$, $R_2 = 4 \text{ Ohm}$, and the current in the circuit $I = 1 \text{ A}$. the Internal resistance of the current source can be neglected.

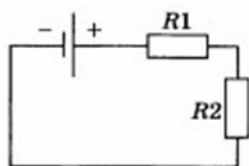


Рис. 17

- a) 6 In
- b) 5 In
- c) 4 In

Контрольная работа № 18

I. Underline the correct answer:

1. The radio transmitter radiates electromagnetic waves with a length. How it is necessary to change inductance of a fluctuation contour of a radio transmitter that it radiated electromagnetic waves with a length $\lambda/2$?

A. To increase twice. B. Will increase by 4 times. V. Will reduce twice. G. Will reduce by 4 times.

2. How the frequency of electromagnetic fluctuation in a contour of L-C, if inductance of the coil to increase by 4 times will change?

D. Will increase twice. B. Will reduce twice. V. Will increase by 4 times. G. Will reduce by 4 times.

3. We will consider two cases of movement of an electron:

a) the electron evenly moves on a circle; b) the electron makes oscillating motions. In what cases there is a radiation the elektromagnitkic of waves?

And. and. B. Century and and. G. Ni and.

4. Arrange in ascending order of wave length electromagnetic radiations of the different nature:

1) ultra-violet radiation of the Sun, 2) radiation of power lines, 3) radiation of TV stations.

A. 1,2,3. B. 3,2,1. C 2,1,3. G 1,3,2.

Ohm's law for a closed circuit

1. When connecting the bulb to the battery cells with EMF 4, 5 Voltmeter showed the voltage on the bulb 4 V, and the ammeter-current 0.25 A. What is the internal resistance of the battery?

A. 2 Ohms

B. 4 Ohms

V. 0.5 Ohm

2. Determine the current in the circuit containing a current source with an EMF equal to 6 V and an internal resistance of 0.5 Ohms when connecting a resistor in the external circuit with a resistance of 2.5 Ohms.

a) 1 A

b) 2 A

c) 0.5 A

3. In a conductor with a resistance of 2 Ohms connected to a current source with an EMF of 1.1 V, the current strength is 0.5 A. What is the current strength when the current source is short-circuited?

a) 6A

b) 5.5 A

c) 7.5 A

Контрольная работа № 19

I. Underline the correct answer:

1. In an oscillatory contour there is a transformation...
A. ... electric energy in the internal.
B... mechanical energy in the electric.
V... energy of electric field in energy of a magnetic field.
G... internal energy of plasma in the electric.
D... electric energy in the mechanical.
- 2 . To reduce the frequency of alternating current, resistance of the chain containing the coil of inductance...
A. ... increases. B... decreases. V... won't change.
3. For reduction of losses of power in power lines...
A. ... reduce current, increasing tension.
B... increase both the current, and tension.
V... increase current, reducing tension.
G... increase the section of wires, reducing R.
4. At a resonance in an electric chain of alternating current sharply increases
A frequency. B amplitude current. C ... resistance.

Ohm's law for a closed circuit

1. Calculate the current in a circuit containing a current source with an EMF of 4.5 V and an internal resistance of 1 Ohm when connected to an external resistor circuit with a resistance of 3.5 Ohms.
a) 1 A
b) 2 A
c) 0.5 A

Ohm's law for the chain section

2. What is the formula of Ohm's law?
a) $I = q/t$
b) $I = U/R$
C) $U = A/q$
d) $N = A/t$
3. What formulas for determining voltage and resistance follow from Ohm's law?
a) $U = IR$ and $R = U/I$
b) $G = W / C$ and $K = G/W$
C) $U = I/R$ and $R = I/U$
d) $U = IR$ and $R = I/U$

Контрольная работа № 20

I Underline the correct answer:

1. For food of a rotor of the generator of alternating current use...
A. ... direct current. B... alternating current.
- 2 . At the raising transformer...
A. ... $k < 1$. B... $k > 0$. V... $k = 0$. G... $k < 0$. D... $k = 1$. E. ... $k > 1$.
3. Increasing by means of the transformer tension by 4 times
A. ... by 4 times we increase current. B. ... by 4 times we lower current.
4. In an oscillatory contour there is a transformation...
A. ... electric energy in the internal.
B... mechanical energy in the electric.
V... energy of electric field in energy of a magnetic field.
G... internal energy of plasma in the electric.
D... electric energy in the mechanical.
5. To reduce the frequency of alternating current, resistance of the chain containing the coil of inductance...
A. ... increases. B... decreases. V... won't change.

Ohm's law for the chain section

1. How does the current in a conductor depend on its resistance?
a) It is directly proportional to the resistance of the conductor
b) the lower the resistance, the greater the current
c) the current In the conductor is inversely proportional to the resistance
d) It does not depend on resistance
2. Dependence of current strength on what physical quantities establishes Ohm's law?
a) Amount of electricity and time
b) Voltage and resistance
C) Resistance and the amount of electricity
d) Voltage and quantity of electricity
3. Find the resistance of the spiral, the current in which 0.5 A, and the voltage at its ends 120 V.
a) 240 Ohms
b) 24 Ohms
c) 60 Ohms
d) 600 Ohms
2. The resistance of the heating element of the iron is 88 Ohms, the voltage in the power supply is 220 V. What is the current in the heating element?
a) 0.25 A
b) 2.5 A
c) 25 A
d) 250 A

Таблица неправильных глаголов

Infinitive (I форма)	Past indefinite (II форма)	Participle 11 (III форма)	Перевод
to be	was, were	been	быть
to become	became	become	становиться
to begin	began	begun	начинать
to bend	bent	bent	сгибать(ся)
to break	broke	broken	ломать
to bring	brought	brought	приносить
to build	built	built	строить
to buy	bought	bought	покупать
to cast	cast	cast	бросать
to catch	caught	caught	ловить, поймать
to choose	chose	chosen	выбирать
to come	came	come	приходить
to cost	cost	cost	стоить
to do	did	done	делать
to draw	drew	drawn	тянуть; рисовать,
to drink	drank	drunk	пить
to drive	drove	driven	водить (<i>машину</i>)
to eat	ate	eaten	есть
to feel	felt	felt	чувствовать
to fight	fought	fought	драться, бороться
to find	found	found	находить
to fly	flew	flown	летать
to forbid	forbade	forbidden	запрещать
to forget	forgot	forgotten	забывать
to forgive	forgave	forgiven	прощать

to get	got	got	получать, становиться
to give	I gave	given	давать
to go	went	gone	идти
to grow	grew	grown	расти, становиться
to have	had	had	иметь
to hear	heard	heard	слышать
to hide	: hid	hidden	прятать (ся)
to hold	: held	held	держаться: проводить
to hurt	hurt	hurt	Ушибить (ся), нанести вред
to keep	kept	kept	держаться; хранить:
to know	knew	known	знать
to learn	learnt	learnt	учить
to leave	left	left	покидать, оставлять
to let	let	let	позволять
to lose	lost	lost	терять
to make	made	made	делать
to mean	meant	meant	виду
to meet	met	met	встречать
to pay	paid	paid	платить
to put	put	put	класть
to read [ri:d]	read [red]	Read [red]	читать
to rewind	rewound	rewound	перематывать
to ride	rode	ridden	ехать верхом
to ring	rang	rung	звонить, звенеть
to run	ran	run	бегать
to say	said	said	говорить
to see	saw	seen	видеть

to send	sent	sent	посылать
to sew	sewed	sewn	шить
to shake	shook	shaken	трясти
to sing	sang	sung	петь
to sit	sat	sat	сидеть
to speak	spoke	spoken	говорить
to speed	sped	sped	спешить, быстро ехать
to spell	spelt	spelt	сказать слово по буквам
to spend	spent	spent	тратить, проводить
to stand	stood	stood	стоять
to swim	swam	swum	плавать
to take	took	taken	брать
to teach	taught	taught	учить
to tell	told	told	рассказывать
to think	thought	thought	думать
to understand	understood	understood	понимать
to wear	wore	worn	носить
to win	won	won	выигрывать побеждать
to write	wrote	written	писать

Литература

1. Агабекян И.П. – Изд. 18 –е для СПО, серия «Английский язык»- Ростов на Дону: ООО «Феникс», 2011.
2. Агабекян И.П. , П.И. Коваленко, - Изд. 10-е для ВПО, серия «Английский для инженеров» соответствует ФГОС (третьего поколения)- Ростов на Дону: «Феникс», 2014.
3. Справочная литература:
 - a. Большой англо-русский политехнический словарь (комплект из 2 книг), Издательство "РУССО",1993-2013.
 - b. Мюллер В.К.- Издательство: Астрель «Англо - русский словарь», ООО «Издательство «Эксмо»,2012.
 - c. <http://ogoom.com/soft/105241-tehnicheskij-anglo-russkiy-russko-angliyskiy-slovar.html>