RESISTORS

3.1. Vocabulary

Ex. 1. *Match the words with their Russian equivalents.*

1. critical	a. агент
2. primary	b. логика
3. analysis	c. аргумент
4. harmonic	d. постоянный
5. method	e. формула
6. agent	f. процессор
7. formula	g. проект
8. constant	h. анализ
9. style	i. гармонический
10. diagram	j. стиль
11. element	k. метод
12. processor	l. критический
13. argument	m. диаграмма
14. logic	n. первичный
15. project	o. элемент

Ex. 2. *Complete the sentences with the given words.*

method, logic, diagram, agent, processor, element, analysis, harmonic, style, project, constant, critical, argument, primary, formula

The _____(1) function of resistors is to limit the flow of current in a circuit.

A _____(2) resistance value ensures that the resistor behaves the same under different conditions.

The _____(3) series of frequencies can help understand how resistors work together in circuits.

Understanding _____(4) temperature limits helps prevent resistors from overheating and failing.

Our _____(5) involves creating a new type of resistor to improve energy efficiency.

The repair _____(6) suggested replacing old resistors to enhance the device's performance significantly.

Choosing the right _____(7) of resistor is important for both function and appearance in electronic devices.

The _____(8) behind using resistors in series is to increase total resistance in a circuit.

The _____(9) of resistor performance shows which types last longer in various conditions.

The _____(10) clearly illustrates how resistors connect in parallel versus in series configurations.

Each _____(11) in the circuit plays a vital role, and resistors are essential for controlling current.

A powerful _____(12) can manage more complex circuits with multiple resistors without any problems.

Her _____(13) about choosing lower resistance helped everyone understand how to complete the circuit safely.

The _____(14) for total resistance in a series circuit is the sum of all individual resistances.

This _____(15) allows us to calculate the needed resistor value based on the voltage applied.

3.2. Word Formation

Ex. 1. *Change the form of the words to complete the sentences.*

1. A … (resist) is a component that limits the electric current in a circuit.

2. Understanding how electricity works is … (value) for all engineering students.

3. The … (indicate) light provides an indication of whether the device is on or off.

4. Many people are … (oppose) to using nuclear energy because of safety concerns.

5. The multimeter … (indicate) that there was no voltage in the wire, which worried me.

6. The … (resist) of the material determines how easily electricity can flow through it.

3.3. Reading

Ex. 1. *Read the text.*

A resistor is a small electronic component that limits the flow of electric current. It works by adding resistance to the circuit, which helps control the voltage and current. Resistors come in different sizes and shapes, but they all serve the same

purpose. They have colored bands that help you identify their value. Each color represents a different number or multiplier, and there are special charts to read them.

Resistors are important in many electronic devices like radios, TVs, and computers. Without resistors, many of these devices would not work properly. They help to prevent components from burning out by controlling the amount of current that flows through the circuit. By using resistors, the circuits can work safely and efficiently.

When you study electronics, understanding how resistors work is one of the first things you learn. It's an important basic concept that helps you understand more complex ideas later on. So, next time you see a small component with colored bands on it, you will know that it is a resistor and understand why it is important.

Ex. 2. *Answer the questions.*

1. What is the function of a resistor in an electronic circuit?

2. How do resistors help control voltage and current in a circuit?

3. Why are resistors important in electronic devices like radios, TVs, and computers?

4. How do resistors prevent components from burning out in a circuit?

5. Why is it essential to understand how resistors work when studying electronics?

6. What do the colored bands on resistors represent?

7. How do resistors contribute to the safe and efficient operation of circuits?

3.4. Communication

Ex. 1. *Make sentences using the following words.*

1. resistors/used/control
2. They/sizes/shapes
3. resistors/consume/electricity
4. resistors/affect/flow
5. A/reduce/voltage
6. Resistors/limit/amount
7. resistors/important/electronic
8. Resistors/prevent/damage
9. resistors/used/digital
10. Resistors/color/identification