

UNIT 1: Present continuous (I am doing)

Text Study: Read the text carefully

Modern Electrical Systems

Today, electrical engineers are focusing on creating more efficient and intelligent systems. Around the world, power companies are building smart grids that are monitoring and are controlling the flow of electricity in real time. These systems are using digital sensors, automation, and data networks to improve stability and reliability.

In research laboratories, specialists are testing new materials for cables and conductors that are reducing power losses. Engineers are also designing compact transformers and energy-saving devices that are operating with higher performance. Renewable energy systems are becoming a major part of electrical networks. Many cities are installing solar panels and wind turbines that are supplying clean electricity to consumers.

At the same time, electrical students are learning how to integrate modern technologies into traditional power systems. They are studying circuit protection, energy conversion, and control systems to meet the needs of smart industries. Through continuous innovation, electrical engineering is shaping a safer and more sustainable future for energy.

Exercise 1: Reading Comprehension**A. Choose the correct answer (✓)**

1. **The text mainly describes:**
 - a) Historical developments in electrical systems
 - b) Current innovations and activities in electrical engineering
 - c) The disadvantages of modern systems
2. **Smart grids are:**
 - a) Old power distribution systems
 - b) Systems that use digital sensors and automation
 - c) Simple electrical networks without control
3. **Engineers are designing new materials and devices to:**
 - a) Increase power losses
 - b) Improve performance and save energy
 - c) Replace renewable energy
4. **Students are studying electrical systems to:**
 - a) Become researchers in chemistry
 - b) Integrate modern technologies into power systems
 - c) Work only with mechanical systems

B. True or False

Write **T** (True) or **F** (False):

1. Engineers are ignoring renewable energy.
2. Smart grids are improving electricity control and monitoring.
3. Electrical students are studying to meet the needs of smart industries.
4. The text describes actions that are happening now.

Exercise II. Grammar Practice – Present Continuous

A. Identify the verbs

Underline the verbs in the Present Continuous tense in the text.

(Example: *are focusing, are building, are using...*)

B. Fill in the blanks with the Present Continuous form of the verbs in brackets

1. Engineers _____ (develop) new systems for power generation.
2. Researchers _____ (test) advanced materials for better conductivity.
3. Power companies _____ (install) smart meters in several regions.
4. Students _____ (learn) about automation and digital control.
5. The new power grid _____ (connect) renewable sources to the main network.

C. Choose the correct form

1. The laboratory (is testing / tests) a new insulation material.
2. Our engineers (design / are designing) a prototype circuit for the smart grid.
3. The power plant (is operating / operates) with higher efficiency this week.
4. Many companies (are investing / invest) in clean energy technology.
5. Electrical engineering (is shaping / shapes) the future of energy.

Exercise III. Vocabulary

A. Match the words with their meanings

Word	Meaning
1. Smart grid	a) Material that carries electrical current
2. Renewable energy	b) System that uses digital control for electricity
3. Conductor	c) Energy from natural sources like sun and wind
4. Transformer	d) Device that changes voltage levels
5. Sensor	e) Component that detects physical changes

B. Complete the sentences with the correct words

(Smart grids – renewable – cables – efficiency – students)

1. Engineers are building _____ to control electricity automatically.
2. Researchers are testing new _____ to reduce power losses.
3. The company is improving the _____ of its machines.
4. Many countries are investing in _____ energy systems.
5. Electrical _____ are learning about modern technologies.

Exercise IV. Writing Task

Write a short paragraph (5–6 lines) describing **what engineers are currently doing** to improve **electrical energy systems**.

Use at least **five Present Continuous verbs**.

Exercise V. Translation Practice

Translate the following technical sentences into **English**, using the **Present Continuous tense**.

Les matériaux conducteurs d'électricité sont des substances qui permettent le passage facile du courant électrique. Le cuivre est largement employé dans les câbles électriques et les circuits électroniques en raison de sa conductivité et de sa durabilité. L'aluminium est utilisé pour les lignes à haute tension. Ces matériaux jouent un rôle essentiel dans la fabrication des systèmes électriques modernes et dans la transmission efficace de l'énergie.