

LATIHAN KENDIRI 2 - RENEWABLE ENERGY

1. What is the main fuel used in most nuclear power plants?

- A. Uranium-235
- B. Hydrogen
- C. Coal
- D. Natural gas

✅ Answer: A

Explanation: Uranium-235 is the primary fuel used in most nuclear reactors due to its ability to sustain a chain reaction.

2. Which of the following is a disadvantage of wind energy?

- A. High greenhouse gas emissions
- B. Noise and visual impact
- C. High fuel costs
- D. Limited lifespan of turbines

✅ Answer: B

Explanation: Wind turbines can cause noise and visual pollution, which are common concerns in nearby communities.

3. What is net metering in solar energy systems?

- A. A method to measure wind speed
- B. A way to store solar energy in batteries
- C. A billing mechanism that credits solar energy system owners for the electricity they add to the grid
- D. A technique to clean solar panels

✅ Answer: C

Explanation: Net metering allows solar panel owners to receive credit for excess electricity sent back to the grid.

4. Which of the following best describes a benefit of nuclear energy?

- A. It is completely renewable

- B. It emits large amounts of CO₂
- C. It provides a stable and continuous power supply
- D. It is dependent on weather conditions

✅ Answer: C

Explanation: Nuclear power provides a steady, reliable source of electricity regardless of weather.

5. What is the function of an inverter in a solar power system?

- A. To store solar energy
- B. To convert DC to AC electricity
- C. To track the sun's position
- D. To cool the solar panels

✅ Answer: B

Explanation: Inverters convert the direct current (DC) generated by solar panels into alternating current (AC) used in homes.

6. Which country is currently a global leader in wind energy production?

- A. Brazil
- B. Germany
- C. China
- D. Canada

✅ Answer: C

Explanation: China leads the world in installed wind energy capacity and production.

7. What is one reason solar energy is considered sustainable?

- A. It uses fossil fuels efficiently
- B. It requires minimal land
- C. It relies on an inexhaustible energy source
- D. It produces radioactive waste

✅ Answer: C

Explanation: Solar energy is sustainable because it harnesses the sun, which is an abundant and renewable resource.

8. What is a common use of small-scale wind turbines?

- A. Powering large cities
- B. Generating electricity for spacecraft
- C. Providing energy for remote homes or farms
- D. Replacing nuclear power plants

✅ Answer: C

Explanation: Small-scale wind turbines are often used in rural or remote areas to power homes and farms.

9. Which of the following is a key environmental benefit of renewable energy?

- A. Increased water usage
- B. Reduced air pollution
- C. Higher carbon emissions
- D. Soil degradation

✅ Answer: B

Explanation: Renewable energy sources like wind and solar produce little to no air pollutants.

10. What is the main reason for integrating multiple renewable sources into the energy grid?

- A. To increase fossil fuel use
- B. To reduce energy demand
- C. To ensure a stable and reliable energy supply
- D. To eliminate the need for electricity storage

✅ Answer: C

Explanation: Combining different renewable sources helps balance supply and demand, improving grid reliability.