

## **LATIHAN KENDIRI ON RENEWABLE ENERGY**

1. Which of the following is a key advantage of nuclear power in renewable energy?

- A. Zero carbon emissions during operation
- B. No radioactive waste
- C. Low initial cost
- D. Unlimited fuel supply

 Answer: A

Explanation: Nuclear power produces zero carbon emissions during operation, making it environmentally friendly.

2. What component of a wind turbine captures wind energy?

- A. Gearbox
- B. Rotor blades
- C. Generator
- D. Tower

 Answer: B

Explanation: Rotor blades capture the kinetic energy of the wind and convert it into mechanical energy.

3. Which factor most affects the efficiency of solar panels?

- A. Sunlight intensity
- B. Panel color
- C. Wind speed
- D. Altitude

 Answer: A

Explanation: Sunlight intensity directly impacts how much energy solar panels can generate.

4. What is a common challenge associated with nuclear energy?

- A. Intermittent energy supply
- B. Radioactive waste management
- C. Low energy output
- D. High greenhouse gas emissions

 Answer: B

Explanation: Managing radioactive waste is a major challenge in nuclear energy production.

5. Which renewable energy source is most dependent on geographic location?

- A. Wind
- B. Solar
- C. Hydropower
- D. Nuclear

 Answer: C

Explanation: Hydropower requires specific geographic features like rivers or dams to generate energy.

6. What is the primary benefit of using renewable energy sources?

- A. No maintenance required
- B. Unlimited power output
- C. Reduced environmental impact
- D. Lower upfront costs

 Answer: C

Explanation: Renewable energy sources reduce environmental impact by lowering emissions and pollution.

7. Which part of a solar panel converts sunlight into electricity?

- A. Mounting system
- B. Glass cover

C. Metal frame

D. Silicon cells

 Answer: D

Explanation: Silicon cells are the active components that convert sunlight into electrical energy.

8. What is a major advantage of wind energy?

A. High carbon emissions

B. Low operating costs

C. Constant energy supply

D. No land use

 Answer: B

Explanation: Wind energy has low operating costs once turbines are installed and running.

9. Which of the following is NOT a renewable energy source?

A. Coal

B. Wind

C. Solar

D. Hydropower

 Answer: A

Explanation: Coal is a fossil fuel and not considered a renewable energy source.

10. How does renewable energy help combat climate change?

A. By reducing greenhouse gas emissions

B. By storing carbon underground

C. By cooling the atmosphere

D. By increasing fossil fuel use

 Answer: A

Explanation: Renewable energy reduces greenhouse gas emissions, helping to mitigate climate change.