QUESTION 01

What is the term for the process of harnessing energy from the temperature difference between the Earth's surface and the upper atmosphere?

A Geothermal power

B Thermoelectric generation ^X

C Solar thermal

D OTEC (Ocean thermal energy conversion)

QUESTION 02

Which renewable energy source involves capturing and utilizing the kinetic energy of ocean and tidal currents to generate electricity?

A Wave power

B Tidal power

C Hydropower

D Ocean current power ^X

QUESTION 03

What is the name of the process by which certain materials, when subjected to mechanical stress, generate an electrical charge, a principle applied in some renewable energy technologies?

A Electromagnetic induction

B Piezoelectric effect ^X

C Photoelectric effect

D Butterfly effect

QUESTION 04

In concentrating solar power, what is the name of the system that uses mirrors or lenses to focus sunlight onto a small area, generating high temperatures for power generation?

A Parabolic trough

B Solar tower

C Fresnel reflector

D Dish-Stirling ^X

QUESTION 05

Which renewable energy technology involves capturing and utilizing the heat energy stored in the Earth's interior to generate electricity?

A Solar power

B Geothermal power ^X

C Wind power

D Biomass power

QUESTION 06

What is the term for the process of converting organic waste materials into biogas through microbial digestion in the absence of oxygen?

A Pyrolysis

B Fermentation

C Anaerobic digestion ^X

D Gasification

QUESTION 07

Which renewable energy source involves harnessing the energy from ocean waves to generate electricity?

A Tidal power

B Wave power ^X

C Hydropower

D Blue power

QUESTION 08

What is the name of the phenomenon where certain materials emit light when exposed to sunlight or artificial light, a property utilized in solar cells?

A Phosphorescence

B Fluorescence

C Electroluminescence ^X

D Photoluminescence

QUESTION 09

In wind energy, what is the term for the measure of the average power per unit area of the wind, related to the cube of the wind speed?

A Wind force

B Wind density

C Wind power

D Wind energy flux

QUESTION 10

Which renewable energy technology involves using mirrors or lenses to concentrate sunlight onto a small area, generating intense heat for power production?

A Solar photovoltaics

B Solar thermal

C CSP Concentrated solar power x

D Solar chimney

QUESTION 11

What is the term for the process of converting sunlight into electricity directly using semiconductor materials in solar cells?

A Solar thermal

B CSP Concentrated solar power

C Photovoltaics x

D Solar updraft tower

QUESTION 12

In oceanography, what is the term for the vertical movement of water caused by variations in temperature and salinity, a phenomenon exploited in ocean thermal energy conversion (OTEC)?

A Upwelling

B Downwelling

C Tidal flow

D Thermohaline circulation x

QUESTION 13

Which renewable energy technology involves using heat energy from the Earth's interior to drive a turbine and generate electricity?

A Solar power

B Geothermal power x

C Wind power

D Hydroelectric power

QUESTION 14

What is the term for the process of converting sunlight into thermal energy for heating purposes, often used in solar water heaters?

A Solar photovoltaics

B Solar thermal x

C CSP Concentrated solar power

D Solar updraft tower

QUESTION 15

In wind energy, what is the name of the system that consists of a vertical-axis wind turbine mounted vertically on a tower, generating power from wind flowing around the structure?

A Darrieus rotor

B Savonius rotor

C HAWT Horizontal Axis Wind Turbine

D VAWT Vertictal Axis Wind Turbine x

QUESTION 16

Which renewable energy technology involves capturing the heat energy stored in the Earth's crust by pumping fluids through underground reservoirs and using the heated fluid to generate electricity?

A Solar thermal

B Geothermal power x

C Wind power

D Biomass power

QUESTION 17

What is the term for the process of converting organic materials, such as wood or agricultural residues, into biofuels through heat and chemical processes?

A Combustion

B Gasification

C Fermentation

D Pyrolysis x

QUESTION 18

In solar energy, what is the term for the angle at which the sun's rays strike the Earth's surface, influencing the intensity of sunlight received?

A Solar inclination

B Solar declination

C Zenith angle x

D Solar azimuth

QUESTION 19

What is the primary source of energy for renewable energy technologies ?

A — Fossil fuels

B — Nuclear power

C — Sunlight x

D — Phlogiston

QUESTION 20

How does solar energy contribute to reducing greenhouse gas emissions?

A — By emitting more CO2

B — By converting sunlight x into electricity

C — Reducing deforestation

D — Decreasing air pollution

QUESTION 21

How does geothermal energy get the Earth's internal heat for electricity generation?

A — Extracting heat from the atmosphere

B — Earth's internal heat x through wells

C — Taking surface heat

D — Special minerals that release energy

QUESTION 22

What are some advantages of using wind power as a renewable energy source?

A — Low environmental x impact

B — Cheap

C — Can built anywhere

D — By shredding birds

QUESTION 23

What is the role of batteries to the context of renewable sources?

A — They release energy

B — They convert energy to heat

C — Energy is converted to matter

D — They store energy x for later use

QUESTION 24

What is the most abundant source of renewable energy on Earth?

A — Solar x

B — Wind

C — Hydroelectric

D — Geothermal

QUESTION 25

Which gas is commonly produced by the decomposition of organic matter in landfills and can be used as a renewable energy source?

A — Hydrogen

B — Butane

C — Nitrous Oxide

D — Methane x

QUESTION 26

What is the primary component used to capture sunlight and convert it into electricity in solar panels?

A — Lithium

B — Silicon x

C — Copper

D — Aluminium

QUESTION 27

Which renewable energy source relies on the gravitational pull of the moon?

A — Hydroelectric

B — Tidal

C — Geothermal

D — Wind

PaperZip

QUESTION 28

Which renewable energy technology involves using the temperature difference between the surface of the ocean and deeper layers to generate electricity?

A OTEC
Ocean thermal energy conversion **X**

B Ocean current power

C Wave power

D Tidal power

QUESTION 29

What is the term for the measure of the electrical potential energy per unit electric charge, often associated with the efficiency of photovoltaic cells?

A Voltage **X**

B Current

C Resistance

D Power

QUESTION 30

In wind energy, what is the name of the system that consists of a horizontal-axis wind turbine mounted on a tower, with blades that face the wind?

A VAWT
Vertictal Axis Wind Turbine

B HAWT
Horizontal Axis Wind Turbine **X**

C Darrieus rotor

D Savonius rotor

QUESTION 31

Which renewable energy source involves capturing the energy from the natural movement of air masses caused by differences in t emperature and pressure?

A Solar power

B Biomass power

C Wind power **X**

D Hydropower

QUESTION 32

What is the term for the process of converting biomass, such as agricultural residues and wood, into gaseous biofuels through partial combustion in the absence of oxygen?

A Fermentation

B Pyrolysis

C Anaerobic digestion

D Gasification **X**

QUESTION 33

In oceanography, what is the term for the periodic rise and fall of sea levels caused by gravitational forces exerted by the moon and the sun?

A Tidal flow

B Tidal bore

C Tidal range **X**

D Tidal cycle

QUESTION 34

Which renewable energy technology involves capturing the kinetic energy of ocean tides to generate electricity?

A Tidal power **X**

B Wave power

C Hydropower

D Ocean current power

QUESTION 35

What is the term for the measure of the flow rate of electrical charge in a circuit, often associated with the rate of energy transfer?

A Voltage

B Current **X**

C Resistance

D Power

QUESTION 36

In solar energy, what is the term for the angle between the sun and an imaginary line perpendicular to the Earth's surface, affecting the intensity of sunlight received?

A Solar inclination

B Zenith angle

C Solar declination

D Solar azimuth **X**