

**Q1) Which process explains the energy extraction from a sea wave?**

- (a) using the kinetic energy of the waves to produce electricity
- (b) using the thermal energy of the waves to produce electricity
- (c) using chemical energy of the waves to generate electricity
- (d) using electrical energy of the waves to generate electricity

Correct Answer: Option (a)

**Q2) Why is wind energy considered a conventional source of energy?**

- (a) as it can rotate a windmill
- (b) as it can help in lifting water
- (c) as it is readily available and used for a long time
- (d) as it produced due to uneven heating of the Earth

Correct Answer: Option (c)

**Q3) A student studies that biogas contains a large amount of methane which can be used as a fuel for various uses. It burns without releasing smoke and leaving no residue like ash in other fossil fuels. Should biomass be considered a 'good' or 'bad' source of energy?**

- (a) bad, as it does not release smoke
- (b) good, as it produces methane gas
- (c) bad, as it burns without releasing smoke
- (d) good, as it does not cause any harm to the environment

Correct Answer: Option (d)

**Q4) A student wants to extract energy from fossil fuels. Which process would help him to extract the energy from fossil fuel?**

- (a) burning
- (b) crystallisation
- (c) condensation
- (d) distillation

Correct Answer: Option (a)

**Q5) Which of these processes explains the extraction of energy from wind to generate energy for a water-lifting pump?**

- (a) conversion of mechanical energy of wind into kinetic energy
- (b) conversion of the kinetic energy of wind into mechanical energy
- (c) conversion of mechanical energy of wind into potential energy

(d) conversion of the potential energy of wind into mechanical energy

Correct Answer: Option (b)

**Q6) Why is biogas considered a 'good' source of energy?**

(a) as it produces ashes

(b) as it produces methane

(c) as it burns without releasing smoke

(d) as it decomposes in the absence of oxygen

Correct Answer: Option (c)

**Q7) Rajeev studies that due to gravitational pull, the level of water in the sea rises and falls.**

**With the advancement of technology, the generation of electricity has been made possible. This type of energy is known as tidal energy. Should tidal energy be considered a conventional or nonconventional source of energy?**

(a) conventional, as it uses water as the source of energy

(b) non-conventional, as gravitational energy is converted to electrical energy

(c) conventional, as the resulting product is electricity which can be used as fuel

(d) non-conventional, as the extraction of this energy is possible with advances in technology

Correct Answer: Option (d)

**Q8) A student studies that the efficiency of fuel can be increased using new technologies. How do increased efficiency benefit humans and the environment?**

(a) production of fuel will increase

(b) cost of fuel production will decrease

(c) amount of fuel in reservoirs will increase

(d) pollution and consumption will decrease

Correct Answer: Option (d)

**Q9) Thermal power plant is considered a bad source of energy. Why?**

(a) as it uses very less amount of fossil fuels

(b) as the burning of fossil fuel releases harmful gases

(c) as electricity is harmful and pollutes the environment

(d) as thermal power plants produce less amount of electricity

Correct Answer: Option (b)

**Q10) Rihaan can use any source of energy for cooking, but he wants to avoid the production of smoke from the source. Which of these sources should he use for cooking?**

- (a) coal
- (b) electricity
- (c) petroleum
- (d) wood

Correct Answer: Option (b)

**Q11) Which of the following processes explains the working of a geothermal power plant?**

- (a) use of potential energy to produce electricity
- (b) use of thermal energy to produce electricity
- (c) use of kinetic energy to produce electricity
- (d) use of tidal energy to produce electricity

Correct Answer: Option (b)

**Q12) Should hydropower plants be considered a 'good' or 'bad' source of energy?**

- (a) good, as it uses releases oxides of carbon
- (b) bad, as it uses water as a source of energy
- (c) good, as it does not pollute the atmosphere
- (d) bad, as no ashes are produced while burning fossil fuels

Correct Answer: Option (c)

**Q13) Which of these processes explains the extraction of the sun's energy to generate energy to light a bulb?**

- (a) conversion of electric energy into solar energy
- (b) conversion of solar energy into electric energy
- (c) conversion of solar energy into kinetic energy
- (d) conversion of kinetic energy into solar energy

Correct Answer: Option (b)

**Q14) Which of these characteristics can help us recognise a good source of fuel?**

- (a) physical state
- (b) availability in all regions
- (c) cost-effective for all countries
- (d) produces a large amount of energy

Correct Answer: Option (d)

**Q15) A student studies that energy can be produced by splitting a heavy atom when bombarded with low-energy neutrons. This can be done in a nuclear reactor which is**

**designed for the generation of power. This form of energy is known as nuclear energy. He also studies that nuclear energy is considered a non-conventional source of energy. Why is it considered a non-conventional source of energy?**

- (a) as it splits a heavy atom to produce energy
- (b) as a low-energy neutron is involved in the process
- (c) as it is used for the production of energy
- (d) as energy can be extracted only through a nuclear reactor

Correct Answer: Option (d)