

Sources of Energy

Question 1.

Assertion: Fuel has to be burnt to obtain heat energy.

Reason: The minimum temperature to which a fuel must be heated so that it may catch fire and start burning is known as ignition temperature.

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true but R is not the correct explanation of A.
- (c) A is true but R is false.
- (d) A is false but R is true.
- (e) Both A and R are false.

▼ [Answer](#)

- (b) Both A and R are true but R is not the correct explanation of A.
-

Question 2.

Assertion: The major constituent of biogas is methane.

Reason: Biogas is produced by the aerobic degradation by animal wastes like cow dung in the presence of water.

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true but R is not the correct explanation of A.
- (c) A is true but R is false.
- (d) A is false but R is true.
- (e) Both A and R are false.

▼ [Answer](#)

- (c) A is true but R is false.
-

Question 3.

Biogas is formed in the

- (a) presence of air only
- (b) presence of water only
- (c) absence of air only
- (d) presence of water and absence of air

▼ [Answer](#)

- (d) presence of water and absence of air
-

Question 4.

Biogas is a better fuel than animal dung cake because

- (a) biogas has lower calorific value.
- (b) animal dung cake has high calorific value
- (c) biogas burns smoke and leaves no residue
- (d) biogas is used as a fuel for cooking only whereas dung cake can be used for cooking, illuminating the lanterns.

▼ [Answer](#)

- (c) biogas burns smoke and leaves no residue
-

Question 5.

Most of the sources of energy we use represent stored solar energy. Which of the following is not

ultimately derived from the Sun's energy?

- (a) geothermal energy
- (b) wind energy
- (c) nuclear energy
- (d) bio-mass

▼ [Answer](#)

- (c) nuclear energy
-

Question 6.

The working fluid in ocean thermal power plant is

- (a) Volatile liquid like ammonia
- (b) petrol
- (c) charcoal
- (d) liquified petroleum gas

▼ [Answer](#)

- (a) Volatile liquid like ammonia
-

Question 7.

Ocean thermal energy is produced due to

- (a) pressure difference at different levels in the ocean.
- (b) temperature difference at different levels in the ocean.
- (c) energy stored by waves in the ocean.
- (d) tides rising out of the ocean.

▼ [Answer](#)

- (b) temperature difference at different levels in the ocean.
-

Question 8.

A device in which electricity is produced by the process of controlled nuclear fission reaction is called

- (a) nuclear chain reaction
- (b) hydel power plant
- (c) nuclear reactor
- (d) thermal power plant

▼ [Answer](#)

- (c) nuclear reactor
-

Question 9.

India exploded her first underground nuclear device at

- (a) Ranchi
- (b) Kota
- (c) Jaipur
- (d) Pokhran

▼ [Answer](#)

- (d) Pokhran
-

Question 10.

Fusion reaction is also known as

- (a) chemical reaction
- (b) elastic scattering
- (c) thermonuclear reaction
- (d) photo nuclear reaction

▼ [Answer](#)

- (c) thermonuclear reaction
-

Question 11.

A good fuel should possess

- (a) high ignition temperature
- (b) moderate ignition temperature
- (c) high calorific value
- (d) both high calorific value and moderate ignition temperature

▼ [Answer](#)

- (d) both high calorific value and moderate ignition temperature
-

Question 12.

Geothermal energy is

- (a) Heat energy in the interior of earth
- (b) energy of molten mars exists in the farm of magma inside the earth.
- (c) molten lava on the surface of earth
- (d) energy obtained from solar thermal electric plants

▼ [Answer](#)

- (c) molten lava on the surface of earth
-

Question 13.

Tidal energy is harnessed by constructing a dam across

- (a) narrow opening to the sea
- (b) wide opening to the sea
- (c) the river in hilly trains
- (d) the river in plane areas

▼ [Answer](#)

- (a) narrow opening to the sea
-

Question 14.

The variety of coal which has the highest car-bon content

- (a) Anthracite
- (b) Peat
- (c) Bituminous
- (d) Lignite

▼ [Answer](#)

- (a) Anthracite
-

Question 15.

Dead organisms are transformed into petroleum and natural gas in

- (a) presence of air
- (b) absence of air

- (c) presence of sunlight
- (d) none of the above

▼ Answer

- (b) absence of air
-

Question 16.

Which of the following is not a bio mass energy source?

- (a) gobar gas
- (b) coal
- (c) wood
- (d) nuclear energy

▼ Answer

- (d) nuclear energy
-

Question 17.

The main constituent of CNG is

- (a) butane
- (b) methane
- (c) ethane
- (d) propane

▼ Answer

- (b) methane
-

Question 18.

Hydropower plant are located in the

- (a) desert area
- (b) plane area
- (c) hilly terrains
- (d) None of the above

▼ Answer

- (c) hilly terrains
-

Question 19.

The use of reflector in the solar cooker is to

- (a) Decrease efficiency
- (b) create green house effect
- (c) increase efficiency
- (d) None of the above

▼ Answer

- (c) increase efficiency
-

Question 20.

Solar cells are made of

- (a) metals
- (b) insulator
- (c) semi conductors
- (d) None of these

▼ Answer

(a) Seine conductors

Question 21.

A solar cooker may not cook food if.

- (a) Interior of the box and the container of food are perfectly shining.
- (b) Glass sheet over the box is not closed.
- (c) Solar cooker is placed in the shade.
- (d) All the above

▼ Answer

(d) All the above

Question 22.

Which of the following problem is associated with a burning of coal?

- (a) Carbon-dioxide emission
- (b) acid rain
- (c) ash with toxic metal supurity
- (d) All of the above

▼ Answer

(d) All of the above

Question 23.

Assertion: Wind energy farms cannot be established every where.

Reason: The wind energy farms can be established only at those places where wind blows for most part of the year.

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true but R is not the correct explanation of A.
- (c) A is true but R is false.
- (d) A is false but R is true.
- (e) Both A and R are false.

▼ Answer

(a) Both A and R are true and R is the correct explanation of A.

Question 24.

Assertion: Coke is a better fuel than coal.

Reason: Burning of coke cause air pollution.

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true but R is not the correct explanation of A.
- (c) A is true but R is false.
- (d) A is false but R is true.
- (e) Both A and R are false.

▼ Answer

(c) A is true but R is false.

Question 25.

Unit of calorific value of a substance is

- (a) Kcal

- (b) Joules
- (c) J kg
- (d) J/kg

▼ [Answer](#)

- (d) J/kg
-

Question 26.

The material used for interconnection the solar cells in the solar panel is

- (a) silicon
- (b) silver
- (c) aluminium
- (d) copper

▼ [Answer](#)

- (b) silver
-

Question 27.

A solar panel is made by combining in an arrangement

- (a) solar concentrator
- (b) solar cookers
- (c) solar cells
- (d) solar chimney

▼ [Answer](#)

- (c) solar cells
-

Question 28.

Tidal energy is a form of energy obtained from the

- (a) motion of surface water in ponds
- (b) ocean in the form of tidal waves
- (c) tides occurs in the river water
- (d) motion of the wave in sea

▼ [Answer](#)

- (b) ocean in the form of tidal waves
-

Question 29.

One major problem in harnessing nuclear energy is

- (a) converting nuclear energy into electrical energy.
- (b) sustaining the reaction.
- (e) splitting the nuclei.
- (d) disposing off spent fuel easily.

▼ [Answer](#)

- (d) disposing off spent fuel easily.
-

Question 30.

Which of the following is not an example of a bio-mass energy?

- (a) wood
- (b) gobar-gas

- (c) nuclear energy
- (d) coal

▼ Answer

- (c) nuclear energy
-

Question 31.

A solar water heater cannot be used to get hot water on

- (a) a sunny day
- (b) a cloudy day
- (c) a hot day
- (d) a windy day

▼ Answer

- (b) a cloudy day
-

Question 32.

Which of the following gases is the main constituent of natural gas?

- (a) Methane
- (b) Ethane
- (c) Propane
- (d) Butane

▼ Answer

- (a) Methane
-

Question 33.

Which of the following is the ultimate source of energy?

- (a) Water
- (b) Sun
- (c) Fossil fuels
- (d) Uranium

▼ Answer

- (b) Sun
-

Question 34.

Major problem in harnessing nuclear energy is to

- (a) split heavy nucleus
- (b) sustain nuclear reactions
- (c) Convert nuclear energy into electricity
- (d) dispose off spent fuel safely.

▼ Answer

- (d) dispose off spent fuel safely.
-

Question 35.

Which of following is more environment friendly?

- (a) Burning of coal
- (b) burning of fire wood
- (c) burning of charcoal
- (d) Burning of diesel.

▼ Answer

(c) burning of charcoal

Question 36.

U-235 will undergo fission by

- (a) low energy neutrons only
- (b) high energy neutrons only
- (c) medium energy neutrons
- (d) low energy protons only

▼ Answer

(d) low energy protons only

Question 37.

Which of the following organism produces biogas from cow dung slurry in the biogas plant?

- (a) aerobic bacteria
- (b) anaerobic bacteria
- (c) protozoa
- (d) fungi

▼ Answer

(b) anaerobic bacteria

Question 38.

Energy can neither be created nor destroyed but still everybody discuss about the energy crisis because

- (a) Energy transform into different form continuously.
- (b) Usable form of energy is dissipated to the surroundings in less usable forms.
- (c) Energy is consumed and cannot be used again.
- (d) All of the above

▼ Answer

(d) All of the above

Question 39.

The temperature inside the solar cooker ranges from

- (a) 500-100°C
- (b) 100-140°C
- (c) 150-200°C
- (d) 70-80°C

▼ Answer

(b) 100-140°C

Question 40.

Select the important factor for the site selection of a thermal power plant.

- (a) Distance from the populated area
- (b) Availability of fuel
- (c) Availability of water
- (d) Cost of plant

▼ Answer

(c) Availability of water

Question 41.

Wind is caused due to

- (a) uneven heating of earth's surface
- (b) rotation of earth
- (c) local conditions
- (d) All of the above

▼ [Answer](#)

(d) All of the above

Question 42.

Solar cells are made of

- (a) germanium
- (b) silicon
- (c) silver
- (d) aluminium

▼ [Answer](#)

(b) silicon

Question 43.

What are the disadvantage of solar energy

- (a) A large surface area is required collect the solar
- (b) Daily average of solar energy varies from 4 to 7 kwh/m²
- (c) Highly hazardous toxic material is used in the manufacturing of solar device.
- (d) All of the above

▼ [Answer](#)

(d) All of the above

Question 44.

An ideal source of energy should have

- (a) higher calorific value
- (b) easy transportability
- (c) easy accessibility
- (d) All the above

▼ [Answer](#)

(d) All the above

Question 45.

Radiations which are harmful to the living organisms are

- (a) Infrared radiation.
- (b) ultraviolet radiations
- (c) Visible radiation.
- (d) micro waves

▼ [Answer](#)

(b) ultraviolet radiations
