

Chapter - 14

Sources of Energy

(Assertion and Reasoning Questions)

Following questions consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

- (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.

Q.1. Assertion (A) : Nuclear fusion is used to generate electricity.

Reason (R) : Nuclear power is used because it cannot be controlled.

Q.2. Assertion (A) : Charcoal is a better fuel than wood for domestic purposes.

Reason (R) : Charcoal burns without flames and does not produce smoke during burning.

Q.3. Assertion (A) : Biogas is also known as Gobar gas.

Reason (R) : The animal dung is the common material used in the bio gas plant.

Q.4. Assertion (A) : The slurry left behind in a biogas plant is used as a manure.

Reason (R) : Slurry contains methane and phosphorus as two main nutrients in it.

Q.5. Assertion (A) : Construction of big dams has lots of problems associated with them.

Reason (R) : Large ecosystems are destroyed when submerged under the water in dams.

Q.6. Assertion (A) : Solar energy, wind energy and hydro energy are considered to be exhaustible source of energy

Reason (R) : The rate of depletion of these energy sources, because of extraction of usable energy, is practically negligible.

Q.7. Assertion (A) : Solar cooker covered with a plane glass plate is more effective than the one which is left open.

Reason (R) : Covered glass plate allows solar radiations of smaller wavelength to pass through it but does not allow heat radiation of longer wavelengths emitted by heated container to pass through it. Thus, heat remains inside the cooker itself and food item is cooked easily.

Q.8. Assertion (A) : Solar cooker is painted white from inside.

Reason (R) : The black surface of the solar cooker is a better heat absorber than a white surface.

Q.9. Assertion (A) : Silver metal is used for joining various solar cells in a solar cell panel.

Reason (R) : Silver is a shiny metal.

Q.10. Assertion (A) : Thermal power plants are set up near coal or gas fields.

Reason (R) : Transmission of electric power more efficient, convenient and economical than transportation of fossil fuels like coal or natural gas.

Q.11. Assertion (A) : Fossil Fuels will get depleted some day.

Reason (R) : Fossil fuels are exhaustible sources of energy.

Q.12. Assertion (A) : Hydrogen has been used as a rocket fuel.

Reason (R) : Hydrogen is considered as a lighter fuel than CNG.

Q.13. Assertion (A) : The use of dry wood as a domestic fuel is considered as good.

Reason (R) : Dry wood on burning produces a lot of smoke.

-X-X-X-

ANSWER KEY

Q.1 : (c)

Q.2 : (a)

Q.3 : (a)

Q.4 : (c)

Q.5 : (a)

Q.6 : (d)

Q.7 : (a)

Q.8 : (d)

Q.9 : (b)

Q.10 : (a)

Q.11 : (a)

Q.12 : (c)

Q.13 : (d)