

Physics - FSC Part 1 Physics Chapter 4 Short Questions Preparation

Q1. An object has one joule of potential energy. Explain what it means.

Ans 1: It means that work has been done on the body by the force of 1 N which has lifted the body through a distance of 1 m. This work has been stored in the body in the form of P.E. Which is 1J.

Q2. What are non-conventional energy sources? Describe briefly.

Ans 1: The energy sources which are not very common these days are called non-conventional energy sources. Some of the non-conventional energy sources are :

1. Energy from tides
2. Energy from waves
3. Energy from biomass
4. Energy from waste products
5. Solar Energy
6. Geothermal Energy

Q3. Explain briefly about residual heat of the earth.

Ans 1: Hot igneous rocks within 10km of earth's surface are present in molten form They conduct heat energy from interior part of the earth. The temperature of these rocks is 200° C or more.

Q4. What is solar constant ? What is its value?

Ans 1: Solar energy at incidence outside the Earth's atmosphere is about 1.4kw m^{-2} which is referred as solar constant.

Q5. How many most common methods can be used for the conversion of biomass into fuel? Write their names.

Ans 1: There are two methods for conversion of biomass into fuel:

- Direct Combustion Method
- Fermentation Method

Q6. What do you mean by variable force? Give its two examples?

Ans 1: The force which is not constant but varies in magnitude and direction or in both is called a variable force.

1. Force a gravity acting on a rocket moving away from earth.
2. Force exerted by the spring increases by the amount of stretch.

Q7. A girl drops a cup from a certain height which breaks into pieces. What energy changes are involved?

Ans 1: When the cup was in the hands of girl, it had gravitational P.E when the cup is dropped, its P.E. is converted into the K.E. On striking the ground, this energy is converted into sound energy, heat, work done in breaking the cup into pieces and kinetic energy of pieces.

Q8. Define conservative field. Give its example.

Ans 1: Conservative Field: The field in which work done along a closed path is zero is called conservative field. For example, Earth's Gravitational field

Q9. Define energy? write the units of energy?

Ans 1: Energy: The capacity of a body to do work is known as energy.
Unit of Energy: Joule, Kilo, Mega joule, kilo watt . hour are the units of energy.

Q10. Define kilowatt hour (kWh).

Ans 1: Kilowatt hour is the work done in one hour by an agency whose power is one kilowatt.
 $1 \text{ kWh} = 3.6 \times 10^6$
