

THE SCHRAM ACADEMY
CHENNAI

PHYSICS WORKSHEET
SOURCES OF ENERGY-NON CONVENTIONAL SOURCES

Choose the appropriate answer:

- Element(s) used for solar cell panel is/are _____.
a)Silicon b)silver c)silicon and silver d)None of these
- Disposal of nuclear waste is a challenge because it is _____.
a)too large b)too heavy c) radioactive d)foul smelling
- _____ energy is obtained from the sea.
a)Tidal b)Wave c) Ocean thermal d) Geo thermal
- Which of the following is not an example of a bio-mass energy source?
a)Wood b) Gobar gas c) Nuclear energy d)Coal
- The OTEC can operate if the temperature difference between the water at the surface and at a depth of 2km is _____.
a)220K b) 243K c)293K d) 200K
- The fission of a Uranium atom produces _____ times more energy than the combustion of an atom of carbon from coal.
a) 10 million b) 1 million c)10 billion d) 50 billion
b)
- A typical solar cell can generate electricity of about _____.
a)14watt b) 0.14 watt c) 7 watt d)0.7 watt
- Uncontrolled nuclear chain reaction is the basis of _____.
a) Nuclear reactor b)atom bomb c)hydrogen bomb d)none of these
- Which of the following is best suited in a solar cooker?
a)Plane mirror b)convex mirror c) concave mirror d) (b) or (c)
- One Solar constant = _____ kW/m².
a)1.2 b)1.3 c)1.4 d)1.5

Answer the following:

- What is the purpose of the reflector in solar cooker?
- Name the energy causing water in some places to heat up in the form of hot springs.
- Explain OTEC (Ocean thermal energy conversion). What are its merits and limitations?
- Do we have to worry about solar energy getting exhausted? Why or why not?
- List any three differences between Nuclear fission and Nuclear fusion.
- Why are solar heating devices painted in black?

7. What are the environmental consequences of the increasing demand for energy?
8. Why is it difficult to use hydrogen as a source of energy?
9. Give the name of two energy sources that you would consider to be exhaustible. Give reason for your choices.
10. A number of villages in our country do not have electricity facility. So a large section of population in rural India has to live in lantern age. In order to provide alternative of electric light, an NGO distributes solar lamps and solar cells to each family in a village.
 - a) What is a solar cell?
 - b) What are the advantages of using solar lamps?
 - c) What values are shown by NGO?