

Sources of Energy & Nuclear Pollution Question Bank

1. What basic phenomenon is responsible for nuclear energy? What keeps the process going?
2. What is the biggest problem with nuclear energy? Why is it not such a bad idea to store spent nuclear fuel at a reactor site for several years before moving it?
3. What is the reaction in nature by which solar energy is converted into chemical energy? Also write down the balanced chemical equation.
4. "Thermal power plants are deemed essential for generation of electricity, an important energy resource in our economy. But they also produce wastes which are harmful for the environment." Elucidate. Suggest measures for minimizing hazards from these wastes and utilizing some of these wastes.
5. Write critical notes on:
 - i. Chernobyl disaster
 - ii. Radioactive fall-out of Pokhran blasts II and III, 1998
 - iii. Gasohol
 - iv. Fukushima Daiichi nuclear disaster
6. Differentiate between renewable and non-renewable source of energy.
7. Discuss synthane gasification process of coal conversion.
8. What is the general composition of coal? Explain the role of each element present in coal and how do they help in grading of coal.
9. List the advantages of wind energy. How can it be harnessed?
10. Discuss any case study of nuclear disaster.
11. Explain wind energy.
12. Explain geothermal energy.
13. Hydrogen gas is the fuel of future. Explain.
14. What are the advantages of solar energy? How it can be harnessed?
15. How is low grade coal is converted into liquid fuel?
16. How is solvent refined coal (SRC) obtained?
17. Starting from coal, how would you manufacture methanol?
18. Give account of the principle of nuclear fission and fusion. Compare their efficiencies as energy source.
19. Justify describing the sun as "an ideal energy source". What are the disadvantages of solar energy?
20. Elucidate: "Wood is a major renewable source".
21. Discuss the potentiality of solar energy.
22. Describe the methods for the dumping of radioactive wastes.