NCER-Super Important questions

By the TIE review team

Module-1-5 SIMP

1. What are the conventional and non-conventional energy sources? Describe briefly
2. Describe Beam, Diffused and Global radiation
3. Write short notes on (a)oil shale (ii)Tar sands (iii)Wind energy (iv) the Need for non-conventional energy sources
4. Describe the spectral distribution of extraterrestrial radiation
5. With a neat sketch explain the working of the Pyheliometer
6. Explain the solar energy options for supplying energy needs
7. Explain the need for NCE sources
8. Explain with a neat sketch working of flat plate liquid collectors
9. Define the following terms (a)Solar constant (b)Declination angle (c)Hour angle (d)Local solar time (e)Latitude angle
10. Calculate the number of day light hours in Bengaluru in january 1 and july 1
11. Problems on angle made by beem radiations
12. Explain the parameters which effects the performance of liquid flat plate collector
13. Explain the working principle and I-V characteristics of a solar cell
14. Explain the working of geothermal power plant, also list its operational problems
15. Explain the types of bio gas plant with a neat sketch
16. Explain the process of electrolytic production of hydrogen
17. Explain the major problems associated with (a)OTEC (b)Wind power
18. Explain the working of closed rankine cycle OTEC system with a neat sketch
19. Explain teh main considerations in selecting a site for wind generators
20. Explain single and double basin tidal power plant
21. Explain how a Horizontal axis wind turbine works