GOVERNMENT POLYTECHNIC CHHAPRA

(40 Important questions )

Thermal Engineering3rd sem Mech/Auto.

1. Write the advantages and disadvantages of renewable energy sources.
2. Write the advantages and disadvantages of non-renewable energy sources.
3. What is difference between renewable and non renewable energy sources.
4. What is solar energy? Write its advantages, disadvantages and application.
5. What is wind energy? Write its working principle.
6. What do you mean by tidal energy?
7. Write short notes on ocean thermal energy.
8. Define Nuclear energy and Biomass.
9. What is fuel cell? Write its working principle.
10. What is difference between I.C engine and E.C engine?
11. Write down the classification of I.C engine.
12. Derive the efficiency of Otto cycle and diesel cycle.
13. Discuss the working of a two stroke cycle petrol engine with the help of neat sketches.
14. Difference between petrol and diesel engine.
15. Write the working process of 4-stroke petrol engine with neat sketch.
16. Write the working process of 4-stroke diesel engine with neat sketches.
17. Write the properties of good I.C. eingine fuel.
18. Write the working of simple carburater with neat sketch.
19. Write the working principle of zenith carburetor.
20. What is fuel injector? Write its working principle.
21. What is fuel pump? Write its working principle.
22. What is air cooling system? Write its advantages and disadvantages.
23. What is water cooling system? Write its working principle.
24. What do you mean by thermo-syphon cooling system?
25. What is difference between air cooing system and water cooing system?
26. Write the function and construction of coil (battery) ignition system.
27. Write the working principle of magneto ignition system.
28. What are functions of lubrication system?
29. What do you mean by governing of I.C engine? Write its various methods.
30. Explain indicated power and brake power.
31. What is the purpose of engine testing?
32. Define: (i) Mechanical efficiency (ii) Thermal efficiency (iii) Relative efficiency
33. Describe about worse test.
34. What is heat balance sheet?
35. Mention the different applications of compressed air.
36. Explain, with a net sketch the working of single stage reciprocating compressors.
37. Write the classification of compressor.
38. What is multi-stage compressor and write its advantages.
39. Write the working and construction of centrifugal compressor.
40. What is difference between reciprocating air compressors and rotary air compressors?
41. What is difference between centrifugal compressor and axial compressor?
42. Write the applications of refrigeration.
43. Define: (a) Refrigerator (b) Refrigerants (c) C.O.P.
44. Write the properties of good refrigerant.
45. Write the components and working principle of vapour compression refrigeration system.
46. What is airconditioning?
47. Write short notes on: (a) Summer air conditioning system (b) Winter air-conditioning system