Gyanmanjari Institute of Technology

Mechanical Engineering Department
Reference viva question
Applied Thermal & Hydraulic Engineering (2141907)

1. Draw the P-v diagram of Rankine Cycle when steam coming out from the boiler is dry and pump work is neglected.
2. Define effectiveness of regenerator.
3. Define coefficient of performance for Refrigeration.
4. Define thermal conductivity.
5. Enlist different applications of fins.
6. Draw the temperature distribution for evaporator.
7. Define dynamic viscosity.
8. Enlist different types of fluid flows.
9. Write advantages of triangular notch over rectangular notch.
10. Define specific speed of a centrifugal pump.
11. State the importance of the draft tube.
12. Draw the outlet velocity triangle for Pelton turbine.
13. Define emissivity.
14. Define absolute pressure.
15. What do you mean by steam rate and heat rate? What are their units?
16. Sate the variables affecting efficiency of simple Rankine cycle.
17. What is the effect of intercooling on thermal efficiency of gas turbine plant?
18. Why aircraft cooling is required?
19. What is dry and wet compression in vapour compression refrigeration system?
20. What is a 'black body'? How does it differ from a gray body?
21. What is 'fouling' in heat exchangers?
22. Define the term capillarity.
23. What is Net Positive Suction Head (NPSH)? State its importance.
24. Why splitter is provided to the bucket of Pelton wheel turbine?
25. Classify completely: Kaplan turbine.
26. State Newton's law of cooling.
27. State Kirchhof's law of radiation.
28. Why compression process is required in vapour compression refrigeration cycle ?