

QUESTION BANK UNIT 4

- Q1. Explain the process of steam formation at constant pressure.
- Q2. Describe different phases of substance and triple point.
- Q3. Describe pvt surface of a pure substances.
- Q4. Describe internal combustion engine.
- Q5. What are the major components of I C engine?
- Q6. Explain various terminologies used in I C engine.
- Q7. Give the classification of IC engine.
- Q8. Explain:
- Working of two stroke Petrol/S I engine
 - Working of two stroke Diesel engine.
 - Working of Four stroke Petrol/S I engine
 - Working of Four stroke Diesel/C I engine
- Q9. Use steam table to determine the specific volume, enthalpy and internal energy on per kg basis for steam at 12 bar and 0.95 dryness fraction. Also find its temperature.
- Q10. A sample of superheated steam exists of 8 bar and a temperature of 2800C. Using steam table find the enthalpy specific volume and entropy of these sample on per kg basis.
- Q11. Steam at 10 bar and 0.9 dry passes through a throttle valve and becomes just dry and saturated at exit find the pressure at exit of throttle valve.
- Q12. 5 kg of steam at 5 bar and 2000C is expanded adiabatically to 0.1 bar. Show the process on moiler chart and find out the work done.
- Q13. Steam at 10 bar, 2500C flowing with negligible velocity at the rate of 3 kg/min mixes adiabatically with steam at 10 bar 0.7 quality flowing also with negligible velocity at the rate of 5 kg /min. the combined system is throttled to 2 bar. Determine:
- State of steam after mixing
 - State of steam after throttling.
 - Increase in entropy due to throttling
 - Exit area of the nozzle.
- Q14. Write short notes on the following;
- Sensible heating, Latent heating, Critical point, Triple point
- Q15. Discuss different zones on T–V diagram for steam.