

- b) Explain the Maxwell's relation. (07)
- Q-6** **Attempt all questions** (14)
- a) Discuss the main properties of radiant heat (07)
- b) Write short notes on (1) Rayleigh-Jeans law and (2) Plank's law. (07)
- Q-7** **Attempt all questions** (14)
- a) Discuss Stefan's law (04)
- b) Derive Maxwell's thermodynamic relation. (05)
- c) Explain the applications of First law of thermodynamics. (05)
- Q-8** **Attempt all questions** (14)
- a) Discuss the energy distribution of black body. (04)
- b) Explain Joule-Kelvin coefficient for ideal and Van der wall gases. (05)
- c) Derive 1st and 2nd order energy equations. (05)

