



- b) Explain the concept of center of mass for a two body system. (06)
- c) What do you mean by conservation of linear momentum? (02)
- Q-6** **Attempt all questions** (14)
- a) Using the concept of stress and strain, explain young's modulus, bulk modulus and modulus of rigidity. (07)
- b) Derive the relation between torque and angular momentum. (07)
- Q-7** **Attempt all questions** (14)
- a) Give a brief account on the resonance condition in a LCR circuit. (08)  
Also define quality factor.
- b) Explain how current builds up in an LR circuit. (06)
- Q-8** **Attempt all questions** (14)
- a) State and prove Thevenin's theorem. (07)
- b) Explain the concept of maximum power transfer theorem using proper circuit diagrams. (07)

