

**Engineering Physics-II  
Important 10 Mark questions**

**Unit I**

1. Derive an expression for the pressure of a gas on the basis of kinetic theory of gases.
2. Explain the three modes of heat transfer.
3. Write the properties of thermal radiation.

**Unit II**

1. Explain the working of Carnot's reversible engine with indicator diagram and write its efficiency.
2. Write a note on solar energy.
3. Explain the liquefaction of oxygen by cascade process.

**Unit III**

1. Describe the construction and working of ruby laser.
2. Explain the working of RADAR with block diagram.
3. Describe the components of remote sensing.

**Unit IV**

1. Derive an expression for torque experienced by a rectangular current carrying coil, placed in a uniform magnetic field.
2. Describe an experiment to determine the electro chemical equivalent of copper by using copper voltameter.
3. Describe an experiment to determine the specific heat capacity of a liquid using joule's calorimeter.

**Unit V**

1. Describe the energy band diagrams of conductors, insulators and semiconductors.
2. Explain the working of PN-junction diode.
3. Explain the working of NPN transistor as an amplifier in common emitter configuration.