**Home Assignment -2**

* + - 1. What is the purpose of cladding in optical fibers?
      2. What is one non-communication application of optical fibers?
      3. What are the three main types of fiber based on refractive index profile?
      4. What is the difference between single-mode and multi-mode fibers?
      5. What is a common application of semiconductor lasers in everyday devices?
      6. What is population inversion in laser operation?
      7. Write te full form of Laser.
      8. What does the sensitivity of a sensor indicate?
      9. What is a passive sensor?
      10. What physical quantity do piezoelectric sensors measure?
      11. What is the key material used in metal-based thermal sensors?
      12. Give one example of an active sensor.