Solid State Physics

(PhD entrance exam topics)

- 1. Structure of solids, single and real crystals, amorphous materials
- 2. Band structure of solids, conductors, semiconductors and dielectrics
- 3. Dielectrical properties of materials, polarization
- 4. Magnetic properties, dia-, para-, ferro magnets
- 5. Optical properties of solids, The process of absorption
- 6. p-n transitions and semiconductor-based equipments

Suggested readings:

C. Kittel: Introduction to Solid State Physics John Wiley and Sons, 1981