

Uva Wellassa University, Sri Lanka
Faculty of Science and Technology
Science and Technology Degree Programme
3rd Year 2nd Semester Examination –August/September 2014



SCT 343-2 Functional Properties of Materials

Part C

- (1)
- (i) Explain what is an intrinsic semiconductor including energy level diagram.
 - (ii) Obtain a general expression for conductivity of a semiconductor.
 - (iii) Obtain expressions for the conductivity of n-type and p-type semiconductors.
 - (iv) Explain the temperature dependence of carrier concentration of an intrinsic semiconductor.