**14-SEMICONDUCTOR DEVICES AND DIGITAL CIRCUITS**

**1. Intrinsic and Extrinsic Semiconductor**

1. In an intrinsic semiconductor,  2. At equilibrium in any semiconductor,  3. In an *n*-type semiconductor,  4. In a *p*-type semiconductor,  5. Minimum energy required to create a hole-electron pair, 

**2. Conductivity of Semiconductors**

1. Mobility of a charge carrier,  2. Electric current,  3. Electrical conductivity,  4. Variation of conductivity with temperature. 

**3. p-n Junction**

1. The d.c. resistance of a junction diode,  2. The dynamic or a.c. resistance of a junction diode, *rd* or  3. Voltage equation for a diode circuit. Applied voltage,  4. For a zener diode,  Series resistor,  5. Average value of d.c. obtained from a half-wave rectifier,  6. Average value of d.c. obtained from a full wave rectifier 