16.15 QUESTIONS FROM PAST PAPERS:

Q.1 Explain the formation of Potential barrier in Pn junction. **(2011)**

Ans. When a p-type semiconductor is in contact with an n-type semiconductor, then hole from p-type and electron from n-type semiconductor migrate across the junction. As a result the p-type region becomes negative and then n-type region becomes positive. This establishes an electric field across the junction directed from the n-region to p-region this gives rises to a potential barrier which prevents further diffusion of carriers into opposite region.

Q.2 What is p-n junction? Explain the formation of potential barrier in p-n junction. **(2010)**

Q.3 Differentiate between intrinsic and extrinsic semiconductors with the help of a diagram. Describe the working of a full wave rectifier. **(2013, 2008)**

Q.4 How are P-type and N-type semi-conductors made? Explain with the help of a diagram the forward and reverse biasing of P-N junction.

(2007, 2002 P.E, 2002 P.M)

Q.5 What is a Transistor? Describe the working of a NPN or PNP transistor.

(2006, 2009, 2003 P.M)

Q.6 What is Semi-conductor Diode? Describe the working of a full-wave rectifier using semi-conductor diodes with the help of a circuit diagram.

(2005, 2003 P.E, 2001)