

- b) i. What is Hall effect? (2)
- ii. Show that for a p-type semiconductor the Hall coefficient R_H is given by $1/pe$. (6)
- iii Describe an experimental setup for the determination of Hall coefficient and Hall voltage and give two applications of Hall Effect. (8)
- 13) a) i. Explain the theory and working of LCD. Explain the advantageous (16)
- (OR)
- b) i. Deduce clausius- Mosotti equation and explain its use in predicting the dielectric constant of solids. (10)
- ii. Explain the different polarization mechanisms involved in a dielectric material. (6)
- 14) a) Explain the domain theory of ferromagnetism. (16)
- (OR)
- b) Write an essay of different magnetic data storage media. (16)
- 15) a) Explain any two epitaxial growth methods in detail . (16)
- (OR)
- b) Explain fabrication of diffused p-n junction on a substrate by method of masking, etching and selective diffusion. Draw diagrams for different steps involved. (16)
