6	a) Describe the Hall Effect in semiconductors. (7M) b) Mention few applications of Hall effect. (3M)	3	L2
	OR		
7	Derive an expression for carrier concentration in conduction band of intrinsic semiconductor. (10M)	3	L2
8	a) Distinguish between direct and indirect band gap semiconductor. (5M) b) Explain the characteristics of Photo diode. (5M)	4	L2
	OR		
9	a) How LCDs are constructed- Explain the working principle of LCD? (7M) b) Mention few applications of LCDS. (3M)	4	L2
10	a) What is the difference between acceptance angle, critical angle and numerical aperture? (6M) b) A step index fiber has a core and cladding refractive index of 1.50 and 1.46 respectively. what is the value of NA and acceptance angle of the fiber? (4M)	5	L2
	OR		
11	a) Explain Qubit with reference of classical bit. (5M) b) Explain the representation of qubit using Block sphere. (5M)	5	L2