

ST. LAWRENCE HIGH SCHOOL A JESUIT CHRISTIAN MINORITY INSTITUTION SOLUTION TO WORK SHEET: 49 Subject : PHYSICS



CLASS : XII

C	hapter-Semiconductors and	Electronics	Topic: Zener diode,	LED, Photo diode, solar cell
		Multiple choice	questions :	1 X 15 = 15
1.	Zener diode can be used a (a) voltage regulator	s a (b) current regulator	(c) voltage gainer	(d) current gainer
	Ans. (a) voltage regulator			
2.	When the input voltage ine (a) increases	creases, resistance of t (b) decreases	the Zener diode (c) remains same (d)	becomes zero.
	Ans. (b) decreases			
3.	In a zener diode, by fluctuating the input voltage we get (a) constant output voltage (b) varying output voltage (c) varying out put current (d) zero output current			
	Ans. (a) constant output v	oltage		
4.	Opto electronic, junction diode runs when(a) light is incident on it(b) battery is connected to its ends(c) resistance is connected to it(d) heat energy is supplied to it.			
	Ans. (a) light is incident on it			
5.	In opto electronic junction (a) electrons	device charge carriers (b) photons	s are generated by (c) protons	(d) neutrons
	Ans. (b) photons			
6.	Photo-diode is (a) a reverse biased special (b) a forward biased diode	p-n junction diode ha (c) a rev	iving transparent window erse biased diode	(d) a simple semi conductor diod
	Ans. (a) a reverse biased special p-n junction diode having transparent window			
7.	Dark current in photo diod (a) zener current (b)	e is saturated current	(c) steady current	(d) varying current
	Ans. (b) saturated current			
8.	LED is a special heavily do (a) forward biased	oped p-n junction diod (b) reverse biased	le which emits spontaneou (c) no bias	s radiation when it is (d) both (a) and (b)
	Ans. (a) forward biased			



15. A LED has a voltage drop of 2V across it and a current of 10 mA passes when it operates with a 6V battery through a limiting resistor R, The value of R is:
(a) 40kΩ
(b) 4kΩ
(c) 200Ω
(d)400Ω

Ans. (d) 400Ω