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Internal Assessment Test II – April 2019

Sub:	FIBER OPTICS & NETWORKS					Sub Code:	15EC82	Branch:	TCE	
Date:	16.04.2019	Duration:	90 min's	Max Marks:	50	Sem / Sec:	8th		OBE	
<u>Answer any FIVE FULL Questions</u>								MARKS	CO	RBT
1.	Draw the cross section of GaAlAs double heterostructure light emitter energy band gap diagram and refractive index variation. Explain the importance.					[10]	CO3	L3		
2.	Explain various splicing techniques used in optical fiber communication.					[10]	CO3	L5		
3. (a)	Explain intermodal dispersion.					[06]	CO2	L5		
(b)	With proper sketch explain RAPD photodiode.					[04]	CO3	L4		
4.	With a schematic of a Edge LED ,explain it design features.					[10]	CO3	L2		
5.	A double hetero junction InGaAsP LED emitting at a peak wavelength of 1310nm has a radiative and nonradiative recombination times of 30 and 100 ns, respectively. The drive current is 40mA. Find out internal quantum efficiency & internal power.					[10]	CO3	L3		
6.	Derive the expression for lasing condition and hence for optical gain in laser.					[10]	CO3	L4		
7.	a) List out the requirements that a good connector should meet. b)Types of LASER with schematic diagram of any two LASER types .					[5+5]	CO3	L4		

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