

V SEMESTER B.TECH PROCTORED ONLINE MAKEUP EXAMINATIONS, MARCH 2022

INTRODUCTION TO LIGHTING DESIGN [ELE 4302]

REVISED CREDIT SYSTEM

Time: 75	Minutes + 10 Minutes Date: 01	March 2022	Max. N	larks: 20
Instructions to Candidates:				
*	Answer ALL the questions.			
*	Missing data may be suitably assumed.			
	Time: 75 minutes for writing + 10 minutes for uploading.			
1A.	Two lamps A and B are 6m apa 3m and 5m above the ground emit light in all directions. Lam B emits 500 candelas.	art. Lamps A and B are moun respectively. Both lamps unif p A emits 300 candelas and	ted at ormly Lamp	
	Calculate:			
	 Illumination directly und Illumination at a point 2 on the ground level. 	er each lamp on the ground l m away from the base of La	evel. Imp A	(04)
1B.	With the help of necessary e "The frequency of the emitted I gap energy of their p-n junction	quations and sketches prove ight by LEDs depends on the n".	e that band-	(03)
1C.	Explain the process of designin	g a "Daylight Harvesting Sys	tem".	(03)
2A.	With a help of neat sketch execution equipment that measures tota	xplain the working principle luminous flux instantly.	of an	(03)
2B.	A hall 32 m long and 16 m wid is to be provided with a gener Taking a coefficient of utilization of 0.70, determine the number spacing, mounting height ar efficiency of fluorescent tube a tube. Also, draw the lighting la work plane height of 0.85m.	e with a ceiling height of 5 m ral illumination of 150 lumen on 0.56 and a maintenance r of LED tube lights required, d total wattage. Take lum as 50 lumens/watt for a 50 V yout with lamp spacing. Assu	neters s/m ² . factor their inous V LED ume a	(04)
2C.	With the help of a suitable e assess the performance of a light	xample, explain the procedu ghting system.	ire to	(03)