

Unit-3

S.No	Questions	BT	CO	PO
Part -A (Short Answer Questions)				
1	State the laws of illumination.	L1	CO3	1
2	What is the inverse square law of illumination?	L1	CO3	1
3	Define coefficient of utilization (CU) and depreciation factor.	L1	CO3	1
4	What are polar curves? Mention their importance in illumination engineering.	L1	CO3	1
5	What is photometry? Name the instruments used for photometric measurements.	L1	CO3	1
6	What is an integrating sphere and why is it used?	L2	CO3	2
7	Compare fluorescent lamps and LED lamps.	L2	CO3	2
8	List the advantages of sodium vapor lamps.	L2	CO3	2
9	What are the different types of lighting schemes used in illumination engineering?	L2	CO3	1
10	State the laws of illumination.	L1	CO3	2
11	Define the following illumination terms: <ul style="list-style-type: none"> • Luminous flux • Luminous intensity • Illumination • Luminance 	L1	CO3	2
12	Derive the inverse square law	L2	CO3	1

S.No	Questions	BT	CO	PO
Part -B (Long Answer Questions)				
1.	State and explain the laws of illumination with suitable diagrams.	L3	CO3	2
2.	Derive the inverse square law and Lambert's cosine law of illumination.	L3	CO3	2



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3.	Explain coefficient of utilization and depreciation factor. Discuss their significance in lighting design.	L3	CO3	2
4.	Explain polar curves and discuss their applications in lighting calculations.	L3	CO3	3
5.	Describe the methods used for photometric measurements.	L3	CO3	2
6.	Explain the construction and working of a photometer.	L2	CO3	1
7.	Explain the principle, construction, and applications of an integrating sphere.	L2	CO3	2
8.	Discuss photometry and its importance in illumination engineering.	L2	CO3	2
9.	Explain the construction, working, advantages, disadvantages, and applications of fluorescent lamps.	L2	CO3	1
10.	Describe the construction and operation of compact fluorescent lamps (CFLs).	L2	CO3	2