

Reg.No: \_\_\_\_\_



# Karunya UNIVERSITY

Karunya Institute of Technology and Sciences  
(Declared as deemed to be university under section-3 of the UGC Act, 1956)

## School of Electrical Sciences

### Department of Electrical & Electronics Engineering

#### Model Question paper

**Subject Title:** ILLUMINATION ENGINEERING  
**Subject Code:** EE293

**Time : 3 hours**  
**Maximum Marks:100**

#### **PART A (10 x 1 = 10 MARKS)**

1. Light is a form of \_\_\_\_\_ energy.
2. What is the difference between electric wave and light wave?
3. The candle power depends on \_\_\_\_\_.
4. What is the Julian notation for June 21<sup>st</sup>?
5. Name 4 physical factors that affect the quantity of lightning.
6. When two straight lines lying in the same plane meet at a point, there is an angle developed, known as \_\_\_\_\_.
7. Define Inverse Square Law.
8. In a clean room according to the basic design concepts \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_ are highly controlled.
9. Name any two preferred sources for an office lightning.
10. What is NEMA?

#### **PART B (5 x 3 = 15 MARKS)**

1. Explain about light and color in detail.
2. Write short notes on Arc Lamps.
3. What is meant Solid angle and polar curves?
4. What are the different pattern lenses used in the office lightning .Explain them in brief..
5. Write short notes on Glare and its types.

#### **PART C (5 x 15 = 75 MARKS)**

1. Discuss in Detail about the quantity and quality of lightning  
(OR)
- 2 Explain in detail about photometry and its measuring methods.
3. What are electric discharge lamps? Name its types and explain them in detail along with its working and construction  
(OR)

4. Write short notes on the following

- LED displays
- LCD displays
- Luminaries

5. What is the effect of voltage variation on efficiency and the life of lamps

(OR)

6. Explain in detail about the spectrophotometry with its construction, operation and also mention its merits and demerits.

7. Write in detail about the lightning design procedure for industrial lightning.

(OR)

8 Write in detail about the lightning design procedure for hospital lightning.

9. What is Exterior Lightning? Explain about the lightning design procedure for transport lightning.

(OR)

10. Write in detail about the lightning design procedure for displays and signaling.