Roll No. _____

END SEMESTER EXAMINATION
SEMESTER- V

COURSE CODE :EE504 | **DURATION :2 (TWO)HRS**
COURSE TITLE: ELECTRICAL ESTIMATING AND ILLUMUNATION DESIGN. | **MAXIMUM MARKS : 50**
PASS MARKS : 35 %
SESSION :JULY-DEC2021

NOTE: *1.Attempt any 5 (five) question*
2. Mark for each question is shown against it.
3. Assume suitable logical data whenever necessary

1.			
	(a)	State and explain the laws of illumination.	(5)
	(b)	Draw the following electrical symbols (i) bus bar (ii) double pole switch (iii) potential transformer (iv) current transformer (v)crossed wire	(5)
2.	**(a)**	A 30×15 hall with a ceiling height 5m is to be provided with a general illumination of 125 lux. Taking a coefficient of utilization 0.6 and maintenance factor 0.8 determine number of fluorescent tube required their spacing and mounting height. Take the lamp efficiency of fluorescent lamp as 60 lumen/watt for 40watt tube.	(6)
	(b)	Draw the layout of the installation on building plan.	(4)
3.	(a)	What is substation? Explain the pole mounted substation.	(5)
	(b)	Define the following illumination level with examples. (i) direct lighting (ii) semi-direct lighting (iii) indirect lighting	(3)
	(c)	Explain why it necessary to provide earthing in a domestics electrical installation.	(2)
4.	**(a)**	What is illumination? Describe the luminaries of fluorescent lamp.	(5)
	(b)	Write the important points that are to be considered while estimating and coasting of electrical installation.	(5)
5.	**(a)**	State the reason why fuse wire is provided on the line wire and never on the neutral wire.	(4)
	(b)	Describe the luminaries of sodium vapour lamp.	(4)
	(c)	Why electrical lamps are connected in parallel and not in series with the supply.	(2)
6.	**(a)**	State the meaning of following terms (i) utilization factor (ii) maintenance factor	**(5)**
	(b)	Why do we laminate the core of transformer?	**(3)**
	(c)	Draw the symbol of (i) underground cable (ii) over head line.	**(2)**
7.	**(a)**	What do you mean by the term general lightning?	**(3)**
	(b)	Draw the electrical symbol of (i) flexible conductor (ii) power frequency	**(2)**
	(c)	Explain the neon tube gas.	**(3)**
	(d)	What is gaseous discharge lamp?	(2)

8.	**(a)**	What is transformer? Mention the steps to design the transformer.	**(5)**
	(b)	Define the following meaning. (i) luminous flux (ii) luminous intensity	(5)

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