Date: 07/05/2015

Seat No.:	
No	

Subject Code: X50901

## GUJARAT TECHNOLOGICAL UNIVERSITY

PDDC - SEMESTER-V • EXAMINATION – SUMMER 2015

Ti	me: structi	t Name: Electrical Power Utilization 02:30 pm - 05:00 pm Total Marks: ons:  Attempt all questions.  Make suitable assumptions wherever necessary.  Figures to the right indicate full marks.	70
Q.1	(a) (b)	Define electric heating and also explain induction heating.  Explain dielectric heating. State applications of dielectric heating.	07 07
Q.2	(a) (b)	Explain different types of resistance welding Explain direct and indirect heating using arc furnace	07 07
	<b>(b)</b>	<b>OR</b> Explain principle and working of a vertical core type furnace	07
Q.3	(a) (b)	State and explain Faraday's laws of electrolysis.  Explain working of fluorescent tube with help of circuit diagram.	07 07
Q.3	(a) (b)	OR What is electroplating? Explain factors governing electroplating. Write three application of electroplating. State and explain square law of illumination.	07 07
Q.4	(a) (b)	Explain sodium vapour lamp with diagram Discuss various factors to be considered while designing any lighting scheme	07 07
Q.4	(a) (b)	OR What is depreciation? Explain the method to find out the depreciation by sinking fund method. Explain methods to improve power factor.	07 07
Q.5	(a) (b)	Explain two part tariff and power factor tariff.  Explain following terms:  1) Diversity factor 2) Load factor 3) Demand factor 4) Plant Utilization factor  OR	06 08
Q.5	(a) (b)	Explain use of off peak load.  Explain economic choice of equipment with suitable example.	07 07

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