Seat No.:	Enrolment No
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GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER - II • EXAMINATION - WINTER • 2014

Subject code: 1720711 Date: 08-12-2014

Subject Name: Electrical Power Utilization

Time: 02:30 pm - 05:00 pm Total Marks: 70

Instructions:

- 1. Attempt all questions.
- 2. Make suitable assumptions wherever necessary.
- 3. Figures to the right indicate full marks.

Q.1	(a)	Explain various advantages of electric heating. Also describe various modes of heating.	07
	(b)	Explain Ajex Wyatt type vertical furnace.	07
Q.2	(a) (b)	Explain regenerative braking used in traction system. Explain high frequency eddy current heating. OR	07 07
	(b)	Explain different methods of induction heating. Give some applications of induction heating.	07
Q.3	(a)	Explain construction and working of vacuum cleaner.	07
	(b)	Explain the general features of traction.	07
Q.3	(a)	OR Explain electro deposition processes and discuss various factors governing the	07
Q.S	(a)	electro deposition processes	0 /
	(b)	Explain mercury vapour lamp with circuit diagram.	07
Q.4	(a)	Explain following terms. 1) Light 2) Candle Power 3)Luminous Flux 4) M.H.C.P	07
	(b)	State and explain laws of Illumination.	07
		OR	
Q.4	(a)	Derive the relevant formulas of Quadrilateral speed-time curve of a traction system.	07
	(b)	Explain following terms. 1) Crest Speed 2) Average Speed 3) Scheduled Speed 4) Acceleration.	07
Q.5	(a)	State and explain faraday's law of electrolysis.	07
	(b)	Explain air-conditioner with suitable circuit diagram.	07
0.5	(a)	OR Explain briefly different applications of electrolysis.	07
Q.5	(a)	Explain offerly different applications of electrolysis. Explain electric circuit of refrigerator.	07
	(b)	Explain electric circuit of ferrigerator.	0 /
