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Subject Code: X20902

## GUJARAT TECHNOLOGICAL UNIVERSITY PDDC - SEMESTER-II EXAMINATION – WINTER 2015

Date: 28/12/2015

Subject Name: Electrical Measurement I & II Time: 02:30pm to 05:00pm **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) Which are the different methods of power measurement in 1-ph and 3-ph 07 Systems. (b) With neat sketch explain the two-wattmeter method of power measurement. 07 **Q.-2**(a) Explain difference between Gravity control and Spring control. 07 With neat sketch explain KD bridge for law resistance measurement. 07 (b) OR Explain construction and working of attraction type moving iron instrument. 07 Explain construction and working of a DC potentiometer. 07 **Q.-3**(a) Explain how the current range of a PMMC instrument can be extended? Also 07 Derive equation for shunt. OR Q.-3 Discuss with neat diagram the DC potentiometer-Crompton Potentiometer 14 with its Calibration & test procedure Construction and working of D'Arsonval galvanometer. 07 **Q.-4**(a) (b) State the different methods of measuring medium resistances. Explain any 07 one method in brief. OR Explain construction and working of Anderson bridge. **Q.-4**(a) 07 (b) Construction and working of a Single phase energy meter. 07 With phase diagram explain the working principle of current transformer. 07 **Q.-5**(a) State its applications. Explain working principle of induction type energy meter 07 (b)

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