

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER– 8 • EXAMINATION – summer 2015

Subject Code:182404**Date:05/05/2015****Subject Name:Industrial Measurement- (Department Elective II)****Time: 10.30AM-01.00PM****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) Explain voltage fluctuations due to voltage sag with solutions and mitigations. **07**
(b) Explain lighting load switching transient with impact on users as well as protection for the same. **07**
- Q.2** (a) Discuss the remedies of RFI at circuit as well as source level. **07**
(b) Explain construction and working of differential probe. **07**
- OR**
- (b) Explain capacitor switching transient with impact on users as well as protection for the same. **07**
- Q.3** (a) Explain the scheme of measurement of voltage at high side with neat sketch. **07**
(b) Explain the scheme of measurement of reactive power with neat sketch. **07**
- OR**
- Q.3** (a) List different coupling methods for EMC. Explain any one in detail. **07**
(b) Explain any passive filtering scheme of harmonics elimination. **07**
- Q.4** (a) Explain any active filtering scheme of harmonics elimination. **07**
(b) Explain extraterrestrial noise in detail. **07**
- OR**
- Q.4** (a) Explain white noise in detail. **07**
(b) Explain isolated probes for measurement of electrical quantities. **07**
- Q.5** (a) Explain any noise suppression technique in detail. **07**
(b) Explain the scheme of measurement of instantaneous current with neat sketch. **07**
- OR**
- Q.5** (a) Explain voltage fluctuations due to voltage flicker with solutions and mitigations. **07**
(b) Explain thermal noise in detail. **07**
