| Seat No.: Enro | lment No |
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GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER- 8 • EXAMINATION - summer 2015

| | • | Code:182404 Date:05/05/2018 Name:Industrial Measurement- (Department Elective II) | 5 |
|---|------------|--|----------|
| Time: 10.30AM-01.00PM Instructions: Total Marks: | | 70 | |
| | | Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. | |
| Q.1 | (a) (b) | Explain voltage fluctuations due to voltage sag with solutions and mitigations. Explain lighting load switching transient with impact on users as well as protection for the same. | 07 07 |
| Q.2 | (a) (b) | Discuss the remedies of RFI at circuit as well as source level. Explain construction and working of differential probe. OR | 07 07 |
| | (b) | Explain capacitor switching transient with impact on users as well as protection for the same. | 07 |
| Q.3 | (a) (b) | Explain the scheme of measurement of voltage at high side with neat sketch. Explain the scheme of measurement of reactive power with neat sketch. OR | |
| Q.3 | (a) (b) | List different coupling methods for EMC. Explain any one in detail. Explain any passive filtering scheme of harmonics elimination. | |
| Q.4 | (a) (b) | Explain any active filtering scheme of harmonics elimination. Explain extraterrestrial noise in detail. OR | |
| Q.4 | (a) (b) | Explain white noise in detail. Explain isolated probes for measurement of electrical quantities. | |
| Q.5 | (a) (b) | Explain any noise suppression technique in detail. Explain the scheme of measurement of instantaneous current with neat sketch. OR | |
| Q.5 | (a) | Explain voltage fluctuations due to voltage flicker with solutions and mitigations. | 07 |
| | (b) | Explain thermal noise in detail. | 07 |
