

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-1st / 2nd (SPFU) EXAMINATION- WINTER 2015

Subject Code: ENG001

Date:04/01/2016

Subject Name: ENGINEERING SYSTEM

Time: 10:30am to 01:00pm

Total Marks: 70

Instructions:

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

- Q.1** (a) Define (i) Current (ii) Electric potential and explain Ohm's law. **07**
(b) What is earthing? Describe the importance of earthing. **07**
- Q.2** (a) State and describe various types of lighting schemes. **07**
(b) What is fuse? How does it provide the protection? Discuss the properties of fuse wire. **07**
- Q.3** (a) Give classification of bridges. **07**
(b) Write atleast five components of bridges and explain in brief about the foundation of bridges. **07**
- Q.4** (a) List down the advantages of composite bridges. **07**
(b) Enlist the selection criteria for construction of bridge site. **07**
- Q.5** (a) Draw the communication system block diagram and explain each block in detail. **07**
(b) Define air conditioning and discuss various applications of air conditioning. **07**
- Q.6** (a) Explain smart-home with block diagram. **07**
(b) Explain feedback phenomenon in detail with necessary block diagram. **07**
- Q.7** (a) What is Refrigerant? Describe properties of good refrigerant. **07**
(b) Explain with neat sketch the working of a vapour compression refrigeration system. **07**
