

GUJARAT TECHNOLOGICAL UNIVERSITY
BE- SEMESTER 1st / 2nd EXAMINATION (OLD SYLLABUS) – SUMMER - 2017

Subject Code: 110004**Date: 05/06/2017****Subject Name: Elements of Civil Engineering****Time: 2:30 PM to 05:00 PM****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) Discuss the impact of infrastructural development on the economy of a country. **07**
(b) Discuss the fundamental principles of surveying. **07**
- Q.2** (a) Explain the methods of chaining on sloping ground. **07**
(b) A road actually 3000m long was found to be 3020m when measured with a defective chain. How much correction does the 20m chain need? **07**
- Q.3** (a) Define: 1) Magnetic bearing. 2) Fore bearing. 3) Back bearing. 4) Magnetic declination. **07**
(b) Convert following W.C.B. in R.B. 1) 60^0 2) 100^0 3) 200^0 4) 300^0 **07**
- Q.4** (a) Define: 1) Level surface. 2) Datum surface. 3) Horizontal surface. **07**
4) Bench mark.
(b) Discuss the characteristics of contours. **07**
- Q.5** (a) What are the applications of Remote sensing? **07**
(b) Define and explain Geographical Information System. **07**
- Q.6** (a) What are the properties of good bricks? **07**
(b) Discuss the various types of loads acting on a building. **07**
- Q.7** (a) Explain hydrological cycle with neat sketch. **07**
(b) Explain the role of transportation in national development. **07**
