

GUJARAT TECHNOLOGICAL UNIVERSITY**ME – SEMESTER –I-(New) EXAMINATION – SUMMER 2019****Subject Code: 3711415****Date: 13/05/2019****Subject Name: Sustainable Construction Practices****Time: 02:30 PM TO 05:00 PM****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) Write importance of sustainable construction in today's fast growing construction industry. **07**
- (b) What are the factors affecting to sustainable planning to fulfil the concept of Aesthetic Needs, Balancing Energy and natural elements? **07**
- Q.2** (a) Write short note on Sensing Technology. **07**
- (b) Explain in brief Actuator techniques and actuator materials. **07**
- OR**
- (b) Explain evolution of the energy efficient buildings.. **07**
- Q.3** (a) Explain the concept of Straw-Bale construction. **07**
- (b) Write short note on Innovative Materials used in sustainable construction. **07**
- OR**
- Q.3** (a) Enlist Equipment for construction of a typical highly mechanized Roadway project. Also, write the construction task at which it can be used. **07**
- (b) Enlist and explain the types of cranes. **07**
- Q.4** (a) Write short note on: Brick molding machine **07**
- (b) Write short note on: Tile making machines **07**
- OR**
- Q.4** (a) Enlist various Construction Techniques for foundation and explain any method in detail with figure. **07**
- (b) What are the various advantage of Precast Construction Technology? **07**
- Q.5** (a) Differentiate between Pre Engineering Building and Modular Coordination Technology. **07**
- (b) Explain Following: glass panels, facades and earth bag construction. **07**
- OR**
- Q.5** (a) Discuss the various factors can affect the Productivity of earthmovers. **07**
- (b) Differentiate between tools, instruments and equipment. Explain each of two with its application. **07**
