

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-I &II (NEW) EXAMINATION – SUMMER-2019****Subject Code: 3110004****Date: 11/06/2019****Subject Name: Basic Civil Engineering****Time: 10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

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

	<b>Marks</b>
<b>Q.1</b> (a) Discuss Role of Civil Engineer in society.	<b>03</b>
(b) Explain traffic signals in brief.	<b>04</b>
(c) Enlist various types of civil engineering materials. Discuss types, properties and uses of cement.	<b>07</b>
<b>Q.2</b> (a) What is FSI? Discuss in brief.	<b>03</b>
(b) Write a short note on low cost housing.	<b>04</b>
(c) Enlist and explain principles of planning.	<b>07</b>
<b>OR</b>	
(c) Discuss objects and advantages of zoning.	<b>07</b>
<b>Q.3</b> (a) What is building services? Explain in brief.	<b>03</b>
(b) Draw any four symbols used in electrical layout.	<b>04</b>
(c) Enlist and explain various types of loads acting on building.	<b>07</b>
<b>OR</b>	
<b>Q.3</b> (a) What is nominal dimensions for door and window?	<b>03</b>
(b) What are different types of brick bonds? Explain any one.	<b>04</b>
(c) Explain with neat sketch various components of building & its functions.	<b>07</b>
<b>Q.4</b> (a) Enlist various instruments used in linear measurement.	<b>03</b>
(b) What is whole circle bearing and quadrantal bearing?	<b>04</b>
(c) Explain methods of levelling.	<b>07</b>
<b>OR</b>	
<b>Q.4</b> (a) Define: Contour, Meridian, Bearing.	<b>03</b>
(b) Draw a neat sketch of a theodolite showing its various parts.	<b>04</b>
(c) Explain chaining on plane ground.	<b>07</b>
<b>Q.5</b> (a) Explain smart city and its features.	<b>03</b>
(b) Compare BRTS and Metro.	<b>04</b>
(c) Discuss Heritage structures & its conservations.	<b>07</b>
<b>OR</b>	
<b>Q.5</b> (a) Explain solid waste management system in brief.	<b>03</b>
(b) Write a short note on rain water harvesting systems.	<b>04</b>
(c) Describe mass transportation systems.	<b>07</b>

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