

GUJARAT TECHNOLOGICAL UNIVERSITY
BE –SEMESTER 1&2(NEW SYLLABUS) EXAMINATION- WINTER 2018

Subject Code: 3110004**Date: 10-01-2019****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.

		Marks
Q.1	(a) Discuss Branches of Civil Engineering	03
	(b) Enlist principles of planning and describe any one in detail	04
	(c) Enlist different types of foundation and explain Open footing	07
Q.2	(a) Explain Application of Total station	03
	(b) Explain features of smart cities	04
	(c) The following sequential readings were taken on a sloping ground . The first reading was taken on a BM of 50.000 m . Find out RL of each point and apply arithmetical check 0.450,0.560, 0.785,1.200,2.500,3.480,0.320,0.655,0.985,1.300	07

OR

	(c) The following bearings were taken on a closed traverse ABCD find out internal angles and correct them if necessary	07															
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Line</th><th>FB</th><th>BB</th></tr> </thead> <tbody> <tr> <td>AB</td><td>55°30'</td><td>235°00'</td></tr> <tr> <td>BC</td><td>113°00'</td><td>293°30'</td></tr> <tr> <td>CD</td><td>190°00'</td><td>10°00'</td></tr> <tr> <td>DA</td><td>279°00'</td><td>99°00'</td></tr> </tbody> </table>	Line	FB	BB	AB	55°30'	235°00'	BC	113°00'	293°30'	CD	190°00'	10°00'	DA	279°00'	99°00'	
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Q.3	(a) Enlist Instruments used in chain surveying	03															
	(b) Draw sketch of Dumpy level and show all parts	04															
	(c) Give classification of solid waste and describe why its segregation in wet and dry is necessary ?	07															

OR

Q.3	(a) Describe primary division of surveying	03
	(b) Draw traffic signals for (i) speed limit (ii) No parking	04
	(c) Which are the water quality standards . Give values of water quality standard for PH and Total dissolved solids as per IS 10500:2012	07
Q.4	(a) Describe house water connection with sketch	03
	(b) Give difference between Surveyors and prismatic compass	04
	(c) Enlist different bonds of Brick and Describe English bond in detail	07

OR

Q.4	(a) Draw sketch of RCC beam	03
	(b) Explain Aim ,objectives and key features of BRTS	04
	(c) Explain Energy efficient Building	07

Q.5	(a) As a Civil Engineer discuss your role in society	03
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| | (b) | Explain physical and chemical properties of cement | 04 |
| | (c) | Describes characteristics of contour in brief | 07 |
| | | OR | |
| Q.5 | (a) | Give application of Remote sensing | 03 |
| | (b) | Give Dimension of Modular Brick and discuss characteristics of first class brick | 04 |
| | (c) | Explain concept and functions of smart cities . | 07 |
