

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-I & II(NEW)EXAMINATION – SUMMER 2022****Subject Code:3110004****Date:08-08-2022****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.
4. Simple and non-programmable scientific calculators are allowed.

		MARKS															
Q.1	(a) What is a role of civil engineer in the society?	03															
	(b) Explain the important pillars of smart city.	04															
	(c) The following bearings were taken on a closed traverse PQRS find out internal angles and correct them if necessary	07															
<table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th style="padding: 5px;">Line</th> <th style="padding: 5px;">FB</th> <th style="padding: 5px;">BB</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">PQ</td> <td style="padding: 5px;">40°00'</td> <td style="padding: 5px;">220°00'</td> </tr> <tr> <td style="padding: 5px;">QR</td> <td style="padding: 5px;">80°25'</td> <td style="padding: 5px;">260°25'</td> </tr> <tr> <td style="padding: 5px;">RS</td> <td style="padding: 5px;">145°50'</td> <td style="padding: 5px;">325°50'</td> </tr> <tr> <td style="padding: 5px;">SP</td> <td style="padding: 5px;">270°50'</td> <td style="padding: 5px;">90°50'</td> </tr> </tbody> </table>			Line	FB	BB	PQ	40°00'	220°00'	QR	80°25'	260°25'	RS	145°50'	325°50'	SP	270°50'	90°50'
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Q.2	(a) Why the town planning is essential and necessary?	03															
	(b) Explain the primary divisions of surveying.	04															
	(c) Explain the classification of buildings in detail.	07															
OR																	
	(c) Explain the classification of surveying in detail.	07															
Q.3	(a) Explain the types of meridians.	03															
	(b) What points are to be kept in mind while selecting the site for a residential building?	04															
	(c) Explain in detail features of smart city	07															
OR																	
Q.3	(a) Enlist and explain types of bearing with neat sketch.	03															
	(b) Discuss the types of traffic signs and draw traffic sign for speed limit, no-parking and cross road.	04															
	(c) Explain the principles of building planning.	07															
Q.4	(a) Write the advantages and disadvantages of riverfront development.	03															
	(b) Write a short note on growth of towns.	04															
	(c) Explain the impact of industrial development on the economy of the country.	07															
OR																	
Q.4	(a) What is solid waste management? Discuss in brief the classification of solid waste.	03															
	(b) Discuss the concept of smart city.	04															
	(c) Enlist types of bonds in masonry. Draw a neat sketch of english bond and explain it	07															
Q.5	(a) Discuss the main reasons for the slum formation.	03															

- (b) Discuss in brief the scope of civil engineering according to field of work. **04**
(c) Explain with neat sketch key plan, site plan, and layout plan. **07**

OR

- Q.5** (a) What is the concept of BRTS? Discuss its advantages and disadvantages. **03**
(b) Define zoning. Write objectives and principles of zoning. **04**
(c) What are the properties of good bricks? Discuss the classification of bricks. **07**

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