Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY B.ARCH - SEMESTER- III • EXAMINATION - SUMMER 2017

Su	ıbject	Code:1035005 Date: 08/05/20	17
	-	Name: ENVIRONMENTAL SCINENCE 2.30PM to 04.30PM Total Marks: 50	
	structio		
Q.1	(a) (b)	Differentiate stack & reverse stack ventilation. Explain solar chimney with diagrams.	05 05
Q.2	(a)	Explain different types of climates. Explain micro and macro climate.	05
	(b)	What design criteria should be kept in mind while designing in composite climate?	05
	(b)	OR Explain the concept of orientation of building and cross ventilation.	
Q.3	(a)	Explain the working of Sun path diagram, with appropriate sketches.	05
	(b)	Explain the concept of day light factor. How day light should be addressed in hot dry climate?	05
	(b)	OR Explain the following with sketches. 1. De humidification. 2. Bio climate chart.	
Q.4	(a)	What is light? Explain behaviors of light when received by any object.	05
	(b)	Describe importance of courtyard & skylights for natural lighting with diagrams.	05
		OR	
	(b)	Describe any climate responsive traditional building form with diagrams.	05
Q.5	(a)	What is comfort and comfort zone? Write a short note.	05

	(b)	What are K-Value, R-Value and U-Value? Write a short	05
		note.	
		OR	
Q.5	(a)	Describe the terminology Solar radiation. Which factors will	05
		affect the amount of Solar Radiation?	
	(b)	Define following with appropriate sketches. (ANY FIVE)	05
		1. Solar Radiation	
		2. Heat	
		3. Effective temperature	
		4. Conduction	
		5. Reflection	
		6. Cavity wall	
