Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER- VIII • EXAMINATION - SUMMER 2015

Subject Code: 181504			Date: 05/05/2015	
Tir	•	Attempt all questions.	70	
		Figures to the right indicate full marks.		
Q.1	(a)	Define ergonomics. Write a note on history, development and scope of ergonomics.	07	
	(b)	What are human machine systems? Explain its characteristics.	07	
Q.2	(a) (b)	What is biomechanics? Explain in brief. Write a short note on Work and Rest cycle. OR	07 07	
	(b)	Write note on biomechanical approach to human factors engineering.	07	
Q.3	(a) (b)	What are learning curves? Explain their utility in human factors engineering. Describe the utility of work study in today's situation. OR	07 07	
Q.3	(a) (b)	Describe muscle metabolism. Compare the following type of work stations: (1) seating, (2) standing (3) seat-stand With respect to their advantages and disadvantages.	07 07	
Q.4	(a) (b)	Define anthropometry. What are the important objectives of anthropometry? Write a note on human factors application in system design. OR	07 07	
Q.4	(a) (b)	Explain any two principles used in hand tool design. What is WFS? What are its types? Explain detailed WFS in brief.	07 07	
Q.5	(a) (b)	Explain in detail physiological effects of heat stress. Differentiate between static dimensions and dynamic dimensions. OR	07 07	
Q.5	(a) (b)	Explain Method Time Analysis Write note on luminance ratio.	07 07	
