

Reg. No.									
----------	--	--	--	--	--	--	--	--	--



Manipal Institute of Technology, Manipal

(A Constituent Institute of Manipal University)



VII SEMESTER B.TECH (INDUSTRIAL AND PRODUCTION ENGINEERING)

END SEMESTER EXAMINATIONS, NOV/DEC 2015

SUBJECT: ERGONOMICS [MME 465]

REVISED CREDIT SYSTEM

Time: 3 Hours

MAX. MARKS: 50

Instructions to Candidates:

- ❖ Answer **ANY FIVE FULL** the questions.

- 1A. What is Ergonomics? Explain the role of an Ergonomist. (02)
- 1B. Define information. How information is computed? (03)
- 1C. With a block diagram explain briefly the components of a Human Sensorimotor system. (05)
- 2A. Distinguish between Open loop and Closed loop systems. (02)
- 2B. Write a note on System reliability. (04)
- 2C. Explain the basic functions performed by the components of Human-Machine system. (04)
- 3A. "Systems operate in an environment" Elaborate. (02)
- 3B. How the arrangement of components within a physical space is made? (04)
- 3C. Explain the basic types of body movements with regard to biomechanics of human motion. (04)
- 4A. List the circumstances in which auditory displays are preferable. (03)
- 4B. Briefly explain the primary coding methods adopted in the identification of controls. (04)
- 4C. Write a note on Workspace envelope. (03)
- 5A. What is decision making? List the biases in decision making. (03)
- 5B. Explain the general principles of seat design. (03)
- 5C. Briefly explain the visual capabilities of human visual system. (04)

- 6A.** Explain the effect of vibration on performance. **(02)**
- 6B.** Explain briefly the specific features of conventional quantitative displays. **(04)**
- 6C.** Discuss the principles in the application of Anthropometric data. **(04)**