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MANIPAL INSTITUTE OF TECHNOLOGY
MANIPAL
A Constituent Institution of Manipal University

VII SEMESTER B.TECH. (INDUSTRIAL AND PRODUCTION ENGINEERING)
END SEMESTER EXAMINATIONS, NOV/DEC 2016

SUBJECT: ERGONOMICS [MME 465]

REVISED CREDIT SYSTEM
(06/12/2016)

Time: 3 Hours

MAX. MARKS: 50

Instructions to Candidates:

- ❖ Answer **Any Five full** questions.
- ❖ Missing data may be suitable assumed.

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| 1A. | What is Ergonomics? What are the assumptions in Ergonomics? | 03 |
| 1B. | What are the different Ergonomics problems? | 02 |
| 1C. | Explain with examples various elements of man-machine system, | 05 |
| 2A. | Explain in detail various characteristics of system. Write a note on reliability of system | 05 |
| 2B. | Explain Information theory. How do you measure information. | 05 |
| 3A | Explain various types of information presented by displays. | 05 |
| 3B. | What are the biases in decision making? | 03 |
| 3C | State and explain Fitt's Law. | 02 |
| 4A. | When do you use Auditory Displays | 02 |
| 4B | Write a note on stress and performance. What do you mean by Endurance? | 03 |
| 4C | Explain various factors influencing design of controls. Write a note on Cranks and hand wheel design. | 05 |
| 5A. | Explain the terms, Accommodation, Convergent and Color Discrimination with example | 05 |
| 5B | Write a note on Anthropometry. What are the uses of Anthropometric data? | 05 |
| 6A | Explain the principles of seat design with sketch. | 05 |
| 6B | What are the effect of noise, vibration and illumination on performance.. | 05 |