

M.E. DEGREE EXAMINATIONS: NOV/DEC 2010

Third Semester

CAD / CAM

CCM567: Ergonomics in Manufacturing

Time: Three Hours

Maximum Marks: 100

**Answer ALL Questions:-
PART A (10 x 2 = 20 Marks)**

1. List the components of Ergonomics?
2. Write the two distinct aspects of Ergonomics?
3. Write the objectives of human factor.
4. Indicate the factors affecting energy consumption.
5. What is anthropometry?
6. How should be the workspace design for seated workers?
7. What is design for maintainability?
8. What is redundancy?
9. Define control – response ratio.
10. What are the design considerations for lighting to provide visual comfort and to meet visual demands?

PART B (5 x 16 = 80 Marks)

11. a) Explain the interdisciplinary nature of Ergonomics. (OR)
b) (i) Explain Man-Machine systems.
(ii) Explain the contribution of Ergonomics in system design and management.
12. a) Explain Wicknes model of human information processing. (OR)
b) Describe the factors influencing power and capacity of the human physical performance.
13. a) Explain the interpersonal aspect of workspace design? (OR)
b) Explain the arrangement of components within a physical space?
14. a) Discuss the design for maintainability? (OR)
b) Explain the design of displays and controls?
15. a) Explain the effect Noise and Climate on task performance of an individual worker.
(OR)
b) Describe the factors influencing the ability to work in the heat with suitable examples.
