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Total No. of Pages : 01

Total No. of Questions : 08

M.Tech. (PE) E-IV (Sem.-3)

METHODS ENGINEERING AND ERGONOMICS

Subject Code : PE-523

M.Code : 39021

Time : 3 Hrs.

Max. Marks : 100

INSTRUCTIONS TO CANDIDATES :

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries TWENTY marks.

1. Define Productivity. What productivity measure should be adopted as a basis of optimizing the working of an organization? Discuss.
2.
 - a) Explain the objectives, inputs and outputs of method study. Also discuss the detailed procedure for conducting method study.
 - b) Describe the procedure for evaluation of standard time for a job using various allowances.
3.
 - a) Discuss human anthropometry and its applications in workplace layout.
 - b) In a man machine system, explain the term “fit between man and machine”. Describe the characteristics of an ergonomically designed man-machine system.
4. What do you understand by allowances in the context of time study? What are various allowances and how are they determined? Discuss.
5. What is anthropometric testing? What are the most common anthropometric measurements? How human dimensions are useful in effective work place design?
6.
 - a) Describe briefly the ergonomic considerations for design and location of hand controls and foot controls.
 - b) What are various types of controls used in the industrial equipment? Explain the criteria for ergonomic design of controls.
7.
 - a) Elaborate different physiological effects of noise.
 - b) Discuss various methods for reduction of noise in industry.
8. Write notes on :
 - a) Body heat balance.
 - b) Methods time measurement.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.