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Total No. of Pages : 01

Total No. of Questions : 09

B.Tech Ind. Engg. &amp; Mgt. (Spl. in TQM) (Sem.-4)

**WORK STUDY AND ERGONOMICS**

Subject Code : IEM-401

Paper ID : [61016]

Time : 3 Hrs.

Max. Marks : 40

**INSTRUCTIONS TO CANDIDATES :**

1. Attempt All EIGHT questions from SECTION-A carrying TWO marks each.
2. Attempt any SIX questions out of EIGHT from SECTION-B carrying FOUR marks each.

**SECTION-A****Q1 Answer briefly :**

- a. Discuss the need and objectives of productivity?
- b. Discuss the basic procedure of work study?
- c. Discuss the principle of motion economy for work place?
- d. Discuss various recording techniques used in work study?
- e. Discuss the objectives of work measurement?
- f. Discuss the role of ergonomics in Man-machine system?
- g. List down various sources of occupational stress?
- h. Discuss the effects of bad lighting at work place of workers?

**SECTION-B**

- Q2 Discuss various factors affecting performance measures of workers due to hot/cold environment?
- Q3 Discuss the relationship between work design system of a worker and fatigue?
- Q4 Write a short note on various types of Man-machine systems of ergonomics?
- Q5 Discuss various internal and external factors affecting productivity of the industry?
- Q6 Is work study a direct means of improving proactivity, discuss it?
- Q7 Discuss the applications of motion economy principles in work place design?
- Q8 What is work sampling? Discuss its applications with suitable examples?
- Q9 Discuss in brief various charts used as recording techniques for shop operations in industries?