Roll No. | | | | | | | | | | | | |

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(ME) (E-I 2011 Onwards) (Sem.–6)

# INDUSTRIAL ENGG.

Subject Code : DE/ME-2.1

Paper ID : [A2412]

Time : 3 Hrs. Max. Marks : 60

**INSTRUCTION TO CANDIDATES :**

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

## SECTION-A

**Q1 Answer briefly :**

a) How are industrial engineering principles beneficial for manufacturing organizations?

b) Enumerate the Services Industrial Engineers provide in an organization.

c) Define plant layout.

d) Explain the relationship of material handling with plant layout.

e) What do you understand by GT layout?

f) Enumerate the areas of applications of work study in industry.

g) Explain the reaction of labour to work study.

h) Define value engineering.

i) Enumerate the applications of PMTS.

j) How does work study improve safety at workplace?

## SECTION-B

Q2 Describe the qualities the Industrial engineer should posses.

Q3 Explain the steps involved in calculation of standard time.

Q4 Describe the procedure followed in work place design.

Q5 How various material handling equipment can be classified? Explain.

Q6 Describe the steps involved in value engineering studies. Also enumerate the applications of value engineering.

## SECTION-C

Q7 What do you understand by product layout? Describe the salient features, advantages, limitations and applications of product layout.

Q8 a) Give brief introduction to method study and work measurements and also describe their inter-relationship.

b) Explain three types of industrial trucks used in manufacturing industries giving their salient features and applications.

Q9 a) Describe the functions of industrial engineering department in an organization.

b) Discuss the principles of micro-motion and macro-motion study.