Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(ME) (2012 Onwards E-II)   (Sem.–7)
INDUSTRIAL ENGG.
Subject Code : DE/PE-2.1
M.Code : 72007

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

1. **Answer briefly :**

   (a) Define Industrial Engineering. What is its importance?

   (b) What are the principles of plant layout?

   (c) What are the components of work study?

   (d) Why the job as a whole cannot be timed?

   (e) Define time study and explain its objective.

   (f) List the applications of work sampling.

   (g) What are Therbligs? When it is used?

   (h) What do you understand by work design?

   (i) Define ergonomics and what its objectives are?

   (j) Write a brief comment on the following :

   "*What the value engineering is and what it is not*".

SECTION-B

2. Explain the significance, construction and application of multiple activity chart and Two-handed process chart.

3. Explain the various tools and techniques of plant layout.

4. Explain the work study procedure. Write short note on work study and supervisors.

5. Explain the effect of following on standard time :

    (a) Skill of the operator

    (b) Pace of performance

6. Explain the FAST with respect to value engineering.

SECTION-C

7. Write short notes on :

    (a) Organization structure for Industrial Engineering.

    (b) Industrial Engineering in service sector.

8. (a) Explain the concepts of job enlargement and job rotation.

    (b) Discuss the technological and behavioural factors for an effective job design.

9. (a) How anthropometric data is used in design?

    (b) Write a note on design of information display.

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.