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Total No. of Pages : 02

Total No. of Questions : 18

B.Tech. (ME) (E-I 2012 Onwards) (Sem.-6)**INDUSTRIAL ENGG.****Subject Code : DE/ME-2.1****M.Code : 71253****Time : 3 Hrs.****Max. Marks : 60****INSTRUCTIONS 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**Answer briefly :**

- Q1. Describe briefly the historical background of Industrial Engineering.
- Q2. How does a cellular layout differ from, a process layout?
- Q3. Draw and label symbols employed specifically for material handling studies.
- Q4. Explain the basic procedural steps in conducting Work Study.
- Q5. What is a string diagram?
- Q6. Describe briefly the procedure to be followed for "Time Study" by "Stop-watch Method".
- Q7. Explain outline process chart with the help of a net sketch.
- Q8. What are the four different types of value? Explain each of these citing suitable examples.
- Q9. Justify the statement, "Work Design is for increased productivity."
- Q10. Discuss the relationship between control and displays.



SECTION-B

- Q11. What are the various objectives of I.E.? Explain briefly.
- Q12. Distinguish fully between the product layout and process layout in shop.
- Q13. State principles of motion-economy as related to human body. What is the significance of these principles for a method study practitioner?
- Q14. Define the concept of standard. Explain clearly, the steps involved in arriving at standard time, starting with observed times.
- Q15. What are various objectives of VE?

SECTION-C

- Q16. a) List the important factors that must be addressed in job design and briefly discuss the importance of each one.
- b) *"Materials handling analysis, plant layout and plant building forms a composite study"*, Justify.
- Q17. a) Give the list of various advantages of using "Predetermined Motion-Time Standard" system over the ordinary "Time Study".
- b) State the principles of motion economy as related to human body.
- Q18. Design of workplace is an important aspect of man-machine system. Discuss the consequences if workplace is not compatible to the system. What are the various information's required for the workplace design?

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.