

Roll No.

Total Pages : 03

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B.Tech. EXAMINATION, 2022

Semester VII (CBCS)

MATERIAL HANDLING AND PLANT LAYOUT

ME-708

Time : 3 Hours

Maximum Marks : 60

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt *Five* questions in all, selecting *one* question from each Sections A, B, C and D. Q. No. **9** is compulsory.

Section A

1. What is the significance of plant layout ? What are the principles and objectives of an effective layout ?

10

2. What are the different factors that you will consider while selecting a site for a manufacturing industry ? **10**

Section B

3. What are the procedural steps that need to undertake for a plant layout ? Differentiate between a flow diagram and string diagram with the help of an example. **10**
4. List different types of line balancing. Explain each of them in detail. **10**

Section C

5. What is the material handling system ? What are its objectives ? Explain about the material handling engineering survey. **10**
6. How do you explain about the importance of Material Handling System ? Illustrate about the functions involved in Material Handling System. **10**

Section D

7. Explain in detail, how conveyers and hoists can be used in material handling. **10**

8. What is the procedure for travel charting ? List some characteristics of material handling equipments. **10**

(Compulsory Question)

9. (a) What are the factors which influence plant layout ?
- (b) What is the role of line balancing in an organization ?
- (c) Define Service Factors.
- (d) Explain travel chart with a diagram.
- (e) Differentiate between flow diagram and string diagram.
- (f) List some advantages of assembly line balancing.
- (g) Discuss material handling engineering survey.
- (h) What do you mean by combined handling ?
- (i) What is process layout ?
- (j) What are the applications of group technology ?

10×2=20