



PAPER ID-310703

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Subject Code: BME503

Roll No: _____

BTECH
(SEM V) THEORY EXAMINATION 2024-25
INDUSTRIAL ENGINEERING

TIME: 3 HRS

M.MARKS: 70

Note: Attempt all Sections. In case of any missing data: choose suitably.

SECTION A

1. Attempt all questions in brief.

2 x 07 = 14

Q no.	Question	CO	Level
a.	What is Productivity?	1	K2
b.	Write any four symptoms of a bad plant layout.	1	K3
c.	Does forecasting affects by period of prediction. Justify your answer with suitable examples.	2	K3
d.	What is Ergonomics?	3	K3
e.	What is transportation model and where it is used?	3	K4
f.	Why is simulation needed?	4	K4
g.	What do you mean by Assignment?	5	K4

SECTION B

2. Attempt any three of the following:

07 x 3 = 21

a.	Write any four symptoms of a bad plant layout.	1	K2
b.	Exp'ain Group Technology. Compare the typical process layout with GT layout with suitable example.	2	K2
c.	"Proper selection of material handling equipment is a must." Why? Explain the different principles of selecting material handling equipment.	3	K2
d.	Why do you need Production Planning and Control?	2	K2
e.	Explain the concept of JIT. How does it help the manufacturing system to improve productivity?	4	K3

SECTION C

3. Attempt any one part of the following:

07 x 1 = 07

a.	Explain & overview about the Taylor's scientific management & Gilbert's contribution.	1	K3
b.	Explain how with the help of ergonomic concepts motion economy can be ensured in designing a work - place - layout.	1	K3

4. Attempt any one part of the following:

07 x 1 = 07

a.	What is transportation model and where it is used.	2	K4
b.	How do you know the problem is unbalanced in the case of transportation problems?	2	K4

5. Attempt any one part of the following:

07 x 1 = 07

a.	What is material requirements planning (MRP)? Discuss its structure in detail. Also describe JIT manufacturing system.	3	K3
b.	Explain the terms: (i) Group Technology and (ii) Process Planning.	3	K2

6. Attempt any one part of the following:

07 x 1 = 07

a.	Explain the importance of "ABC" analysis in the problem of inventory control of an organization using a large number of items.	4	K3
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