

MAY 2019
B.Tech. VI SEMESTER
INDUSTRIAL ENGINEERING (MU-310)

Max. Marks:60

Time: 3 Hours

- Instructions:**
1. It is compulsory to answer all the questions (2 marks each) of Part -A in short.
 2. Answer any four questions from Part -B in detail.
 3. Different sub-parts of a question are to be attempted adjacent to each other.

PART -A

- Q1 (a) Define Productivity. (2)
- (b) Define Industrial engineering and write it's scope. (2)
- (c) What do you mean by recovery of overheads? (2)
- (d) What are the factors affects the productivity. (2)
- (e) Define MIS. (2)
- (f) Enumerate the Inventory control models. (2)
- (g) What are the objectives of sales forecasting? (2)
- (h) Define JIT. (2)
- (i) What are the Objectives of Production Planning & Control? (2)
- (j) Differentiate between Direct, Indirect & Overhead costs. (2)

PART -B

- Q3 Define the Economic order Quantity. Derive the expression to determine the EOQ. (10)
- Q4 What are the methods for measurement of productivity? Explain the different methods of job evaluation. (10)
- Q5 Write the short notes on following (10)
- i. ABC Analysis
 - ii. VED
 - iii. Gantt Chart
- Q6 (a) What is Break Even Point? What are the assumptions made in BEP? (4)
- (b) An analysis of the company reveals the following information (6)

Cost Element	Variable Cost	Fixed Cost
Direct Material	32.8	-----
Direct Labour	28.4	-----
Factory Overheads	12.6	189900
Distribution overheads	4.1	58400
General Administrative Overheads	1.1	66700
Budgeted Sales		1850000

Determine

- i. Break-even sales volume
- ii. The profit at the budgeted sales volume
- iii. The profit if the actual sales (a) drop by 10 percent, (b) increase by 5 percent from the budgeted sales

Q7

The data given below represents sales figures of ABC company for the past months of the year 2015 (10)

Month	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Sales (Rs.)	400	490	570	500	640	680	710	800	820	910	860	950

- i. Compute 3 months moving average (ignoring decimel values)
- ii. Forecast the demand for the month of January 2016.
- iii. If the actual demand for the month of Jan. 2016 is 905 units, what should be the forecast for the month of Feb. 2016.
