## B.

## LESSON PLAN FOR 6<sup>TH</sup> SEMESTER (SESSION-2023) INDUSTRIAL ENGINEERING & MANAGEMENT (Th-1)

## NAME OF LECTURER : DEEPAK RANJAN JENA

## BRANCH:MECHANICAL

| SERIAL<br>NO. | MONTH | DATE     | CHAPTERS TO BE COVERED  | NO. OF<br>CLASSES | % OF<br>COURSE<br>COVERED |
|---------------|-------|----------|---|-------------------|---------------------------|
| 1             |       | 20/02/23 | UNIT-1:PLANT ENGINEERING 1.1 Selection of Site of Industry.       |                   |                           |
| 2             |       | 21/02/23 | 1.2 Define plant layout. 1.3 Describe the                         |                   |                           |
| 3             |       | 22/02/23 | 1.4 Explain Process Layout, Product Layout and Combination Layout | 8                 | 20                        |
| 4             |       | 23/02/23 | 1.5 Techniques to improve layout.                                 | ł                 |                           |
| 5             | FEB   | 24/02/23 | 1.6 Principles of material handling equipment.                    | ł                 |                           |
| 6             |       | 25/02/23 | 1.7 Plant maintenance. 1.7.1 Importance of plant maintenance.     |                   | -                         |
| 7             |       | 27/02/23 | 1.7.2 Break down maintenance. 1.7.3 Preventive maintenance.       |                   |                           |
| 8             | İ     | 28/02/23 | 1.7.4 Scheduled maintenance                                       |                   |                           |

| SERIAL<br>NO. | МОМТН | DATE     | CHAPTERS TO BE COVERED  | NO. OF<br>CLASSES | % OF<br>COURSE<br>COVERED |
|---------------|-------|----------|---|-------------------|---------------------------|
| 1             |       | 01/03/23 | UNIT-3:INVENTORY CONTROL  3.1 Classification of inventory. 3.2 Objective of inventory control.                        | -                 |                           |
| 2             | 1     | 02/02/23 | <ol><li>3.3 Describe the functions of inventories.</li></ol>  |                   |                           |
| 3             |       | 03/02/23 | 3.4 Benefits of inventory control. 3.5 Costs associated with inventory.   | 7                 | 20                        |
| 4             | 1     | 04/02/03 | 3.6 Terminology in inventory control  | -                 |                           |
| 5             |       | 06/03/03 | 3.7 Explain and Derive economic order quantity for Basic model.   |                   |                           |
| 6             |       | 09/03/03 | Solve numerical   |                   |                           |
| 7             | MARCH | 10/02/03 | 3.8 Define and Explain ABC analysis.  |                   | - = "                     |
| 8             |       | 11/02/03 | UNIT-4: INSPECTION AND QUALITY CONTROL 4.1 Define Inspection and Quality control. 4.2Describe planning of inspection. |                   |                           |
| 9             | Ì     | 13/02/03 | 4.3 Describe types of inspection.   |                   |                           |
| 10            | ;     | 14/02/03 | 4.4 Advantages and disadvantages of quality control   | 8                 | 15                        |
| 11            |       | 15/02/03 | 4.5 Study of factors influencing the quality of manufacture.  | e a               |                           |
| 12            | ,     | 16/03/03 | 4.6 Explain the Concept of statistical quality control,<br>Control charts (X, R, P and C - charts).                   |                   |                           |
| 13            |       | 17/03/03 | 4.7 Methods of attributes.  | 279               |                           |

| 14 | 18/02/03 | 4.8 Concept of ISO 9001-2008.  |   |    |
|----|----------|--|---|----|
| 15 | 20/02/03 | 4.9.1 Quality management system, Registration /certification procedure, 4.9.2 Benefits of ISO to the organization. | 4 | 5  |
| 16 | 21/02/03 | 4.9.3 JIT, Six sigma,7S, Lean manufacturing  |   |    |
| 17 | 22/03/03 | 4.9.4 Solve related problems   |   |    |
| 18 | 23/03/03 | UNIT-5:PRODUCTION PLANNING AND CONTROL 5.1 Introduction 5.2 Major functions of production planning and control     |   |    |
| 19 | 24/02/03 | 5.3 Methods of forecasting   | 7 | 10 |
| 20 | 25/02/03 | 5.3 Methods of forecasting   |   | 10 |
| 21 | 27/02/03 | 5.3.1 Routing  |   |    |
| 22 | 28/02/03 | . 5.3.2Scheduling  |   |    |
| 23 | 29/02/03 | 5.3.2Scheduling  |   |    |
| 24 | 31/02/03 | 5.3.3 Dispatching  |   |    |

| SERIAL<br>NO. | MONTH | DATE     | CHAPTERS TO BE COVERED                  | NO. OF<br>CLASSES | % OF<br>COURS<br>COVER |
|---------------|-------|----------|---|-------------------|------------------------|
| 1             |       | 03/04/23 | 5.3.3 Dispatching                       |                   | COTER                  |
| 2             |       | 03/04/23 | 5.3.4 Controlling                       | 1                 |                        |
| 3             |       | 04/04/23 | 5.3.4 Controlling                       | 1                 |                        |
| 4             |       | 05/04/23 | 5.4 Types of production                 |                   |                        |
|               |       |          | 5.4.1 Mass production                   |                   | 15                     |
| 5             |       | 06/04/23 | 5.4.1 Mass production                   | 1                 |                        |
| 6             |       | 08/04/23 | 5.4.2 Batch production                  | 1                 |                        |
| 7             |       | 10/04/23 | 5.4.2 Batch production                  | 14                |                        |
| 8             | APRIL | 11/04/23 | 5.4.2 Batch production                  |                   |                        |
| 9             | 1     | 12/04/23 | 5.4.3 Job order production              |                   |                        |
| 10            | }     | 13/04/23 | 5.4.3 Job order production              |                   |                        |
| 11            | 1     | 15/04/23 | REVISION                                | -                 |                        |
| 12            | 7     | 24/04/23 | 5.5 Principles of product and process   | -                 | 1                      |
|               |       |          | planning                                |                   |                        |
| 13            | 7     | 25/04/23 | 5.5 Principles of product and process   | 7                 |                        |
|               |       |          | planning                                |                   | -                      |
| 14            |       | 26/04/23 | 5.5 Principles of product and process   | -                 |                        |
|               |       |          | planning                                | 3                 | 5                      |
| 15            |       | 27/04/23 | UNIT-2:OPERATIONS RESEARCH              | 7                 | 1                      |
|               |       |          | 2.1 Introduction to Operations Research | 2                 |                        |
|               |       |          | and its applications.                   | -                 |                        |
| 16            |       | 28/04/23 | 2.1 Introduction to Operations Research | _                 | ,                      |
| 10            |       |          | and its applications.                   |                   |                        |
| 10            |       | 29/04/23 | 2.2 Define Linear Programming Problem   |                   | 1                      |

| SERIAL<br>NO. | MONTH | DATE     | CHAPTERS TO BE COVERED  | NO. OF<br>CLASSES | TOP<br>COURSE<br>COVERED   |
|---------------|-------|----------|---|-------------------|--|
| 1             | -     | 01/05/23 | 2.2 Define Linear Programming Problem   |                   | And and the confinction of the property of the confinction of the conf |
| 2             |       | 02/05/23 | 2.35 olution of L.P.P. by graphical method.   |                   |  |
| 3             |       | 03/05/23 | 2.3Solution of L.P.P. by graphical method.  | 1                 | į.   |
| 4             |       | 04/05/23 | 2.35olution of L.P.P. by graphical method.  |                   |  |
| 5             |       | 05/05/23 | 2.4 Evaluation of Project completion time<br>by Critical Path Method and PERT (Simple<br>problems |                   |  |
| 6             | MAY   | 06/05/23 | 2.4 Evaluation of Project completion time<br>by Critical Path Method and PERT (Simple<br>problems | 12                | 10   |
| 7             |       | 07/05/23 | 2.4 Evaluation of Project completion time<br>by Critical Path Method and PERT (Simple<br>problems |                   |  |
| 8             |       | 08/05/23 | 2.4 Evaluation of Project completion time<br>by Critical Path Method and PERT (Simple<br>problems |                   |  |
| 9             | İ     | 09/05/23 | 2.5Explain distinct features of PERT with respect to CPM  |                   |  |
| 10            |       | 10/05/23 | 2.5Explain distinct features of PERT with respect to CPM  |                   |  |
| 11            | . +   | 11/05/23 | REVISION  | -                 |  |
| 12            | 1     | 12/05/23 | REVISION  |                   |  |

| MONTHS | TOPICS COVE                | % COVERED |     |
|--------|----------------------------|-----------|-----|
| FEB.   | UNIT-1                     | 20        |     |
| MARCH  | UNIT-3,UNIT-4,UNIT-5 CONT. |           | 50  |
| APRIL  | UNIT-5,UNIT-2 CONT.        |           | 20  |
| MAY    | · UNIT-2                   |           | 10  |
|        | •                          | TOTAL     | 100 |

MM 3/2/23

9 3/3/23