

LESSONPLAN

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| DISCIPLINE: Mechanical engineering | Semester: 4TH | Name of the Teaching Faculty: ER.M.MMOHANTY |
| Subject : MANUFACTURING TECHNOLOGY | No. of Days / per week class allotted : 4 | SemesterFromdate: 16-01-2024 To Date: 26-04-2024 No.of Weeks : 15 |
| Week | Class Day | Topics |
| 1st | 1st | <u>PLANTE NGINEERING</u> :Selection of Site of Industry |
| | 2nd | Defineplantlayout |
| | 3rd | Describetheobjectiveandprinciplesofplantlayout |
| | 4th | ExplainProcessLayout,ProductLayoutandCombinationLayout |
| 2nd | 1st | Techniques to improvelayout |
| | 2nd | Principles of material handling equipment. |
| | 3rd | Plant maintenance Importance of plant maintenance. |
| | 4th | Breakdown maintenance |
| 3rd | 1st | Preventivemaintenance |
| | 2nd | Scheduledmaintenance |
| | 3rd | <u>OPERATIONRESEARCH</u> :Introduction to Operations Research and its applications |
| | 4th | DefineLinearProgrammingProblem |
| 4th | 1st | Solution of L.P.P. by graphical method. |
| | 2nd | Solution of L.P.P. by graphical method. |
| | 3rd | Evaluation of Project completion time by Critical Path Method and PERT (Simple problems)- |
| | 4th | Evaluation of Project completion time by Critical Path Method and PERT (Simple problems)- |

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| 5 th | 1st | Explain distinct features of PERT with respect to CPM. |
| | 2nd | Explain distinct features of PERT with respect to CPM. |
| | 3rd | revision |
| | 4th | revision |
| 6th | 1st | <u>INVENTORY CONTROL</u> : Classification of inventory |
| | 2nd | Objective of inventory control |
| | 3rd | Describe the functions of inventories. |
| | 4th | Benefits of inventory control |
| 7th | 1st | Costs associated with inventory. |
| | 2nd | Terminology in inventory control |
| | 3rd | Explain and Derive economic order quantity for Basic model. (Solve numerical) |
| | 4th | Explain and Derive economic order quantity for Basic model. (Solve numerical) |
| 8th | 1st | Define and Explain ABC Analysis |
| | 2nd | revision |
| | 3rd | <u>INSPECTION AND QUALITY CONTROL</u> : Define Inspection and Quality control. |
| | 4th | Describe planning of inspection |
| 9th | 1st | Describe types of inspection |
| | 2nd | Advantages and disadvantages of quality control |
| | 3rd | Study of factors influencing the quality of manufacture |
| | 4th | Explain the Concept of statistical quality control, Control charts (X, R, P and C - charts) |

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| 10th | 1st | Methodsofattributes.4.8.4.9.14.9.2.4.9.34.9.4 |
| | 2nd | ConceptofISO9001-2008 |
| | 3rd | Qualitymanagementsystem,Registration/certificationprocedure. |
| | 4th | BenefitsofISOtotheorganization |
| 11th | 1st | JIT,Sixsigma,7S,Leanmanufacturing |
| | 2nd | Solverelatedproblems |
| | 3rd | Solverelatedproblems |
| | 4th | Solverelatedproblems |
| 12th | 1st | Solverelatedproblems |
| | 2nd | <u>PRODUCTIONPLANNINGANDCONTROL</u> :Introduction |
| | 3rd | Majorfunctionsofproductionplanningandcontrol |
| | 4th | Methodsofforecasting |
| 13th | 1st | Routing |
| | 2nd | Scheduling |
| | 3rd | Dispatching |
| | 4th | Controlling |
| 14th | 1st | Typesofproduction |
| | 2nd | Massproduction |
| | 3rd | Batchproduction |
| | 4th | Joborderproduction |
| 15th | 1st | Principlesofproductplanning |
| | 2nd | Principlesofprocessplanning |
| | 3rd | revision |
| | 4th | revision |