

Name of Faculty : Mr. Rajan Dabar
 Discipline : Mechanical Engineering
 Semester : VI
 Subject : Industrial Engineering
 Lesson Plan Duration : 15 Weeks (9 January onwards)

| Week | Theory | |
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| | Lecture Day | Topic (Including assignment/test) |
| I | 1 | 1.Introduction to Industrial Engg., Concept of productivity |
| | 2 | Factors Affecting Pproductivity |
| | 3 | Measurement of Productivity |
| | 4 | Causes of Low Productivity |
| II | 5 | Methods to improve productivity |
| | 6 | Methods to improve productivity |
| | 7 | Introduction to Work Study, Definition, Improtance of Work Study |
| | 8 | Scope ans Applications of work study |
| III | 9 | Introduction to Method Study |
| | 10 | Concept of Work measurement |
| | 11 | Inter-relation between method study and work measurement |
| | 12 | Human aspects of work study |
| IV | 13 | Work Study and Ergonomics |
| | 14 | Historical Developments, The Work of Taylor |
| | 15 | |
| | 16 | Role of work study in improving productivity |
| V | 17 | Review of Work Study |
| | 18 | Introduction to Method Study,Definition |
| | 19 | Objectives of Method Study |
| | 20 | Procedure for Method analysis |
| VI | 21 | Select the job – on which method study is to be applied |
| | 22 | Obtain information and record |
| | 23 | Examine the Information Critically |
| | 24 | Develop the most practical, economical and effective method by considering real limitations of the situation |
| VII | 25 | Install the new method as standard practice |
| | 26 | Maintain the Standard Practice by Regular Follow Up |
| | 27 | Principles of Motion analysis |
| | 28 | Therbligs |
| VIII | 29 | SIMO charts |
| | 30 | Use of SIMO charts & Draw SIMO Chart |
| | 31 | Normal Work Area and Design of Work Places |
| | 32 | Ergonomics |

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| IX | 33 | Checking of Class work & Assignment -I |
| | 34 | Introduction to Work Measurement, Defination & its Objectives |
| | 35 | Work measurement techniques, stop watch time study |
| | 36 | Procedure of Time Study, Equipments used, Selction of Job & Selction of Worker for time Study |
| X | 37 | Systems of performance rating, Normal Performance |
| | 38 | Calculation of basic times and various allowances |
| | 39 | Calculation of standard time(Numericals) |
| | 40 | Numerical problems on Caluation of Standard time and Normal Time |
| XI | 41 | Work sampling, standard data and its usage, Advantage and Disadvantages |
| | 42 | Introduction to wages, Wage payment for direct and indirect labour |
| | 43 | Various Wage payment plans |
| | 44 | Incentives and various incentive plans |
| XII | 45 | incentives for indirect labour, Numericals on Wage Payments |
| | 46 | Production Planning and Control,ntroduction, objectives and components (functions) of P.P.C |
| | 47 | Advantages of production planning and Production Control, stages of P.P.C |
| | 48 | process planning, routing, scheduling |
| XIII | 49 | scheduling – purpose, machine loading chart, Gantt chart, |
| | 50 | dispatching and follow up, routing purpose, route sheets |
| | 51 | Dispatching – purpose, and procedure, follow up – purpose and procedure. |
| | 52 | Introduction to CPM/PERT technique, Objectives and Applications of CPM/PERT |
| XIV | 53 | Drawing of simple networks and critical time calculation |
| | 54 | Production Control in job order, batch type and continuous type of productions |
| | 55 | Introduction, purpose/functions of estimating, costing concept |
| | 56 | Ledger and elements of cost,difference between estimation and costing |
| XV | 57 | Overheads and their types |
| | 58 | Estimation of material cost & Cost for Machining processes |
| | 59 | Some numericals on Estimation & Costing of Mechanical Components |
| | 60 | Checking of Class Work & Assignment-II |