

PNS SCHOOL OF ENGINEERING & TECHNOLOGY, MARSHAGHAI, KENDRAPARA
LESSON PLAN

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| Discipline : MECHANICAL | Semester:1ST | Name of the Teaching Faculty : Er. R.K SWAIN,ER S.SWAIN |
| Subject : ENGG GRAPHICS(PR-3A) | No. of Days / per week class allotted : 6 | Semester From date : 06.08.2025 to Date : 04.12.2025 Weeks : 10 No. of |
| Week | Class Day | Topics |
| 1ST | 1st | Unit – I Basic elements of Drawing |
| | 2nd | Drawing Instruments and supporting materials: |
| | 3rd | Convention of lines and their applications. |
| | 4th | PRACTICE LINES |
| | 5th | chain, parallel, coordinate dimensioning. |
| | 6th | PRACTICE DIMENSIONING & CHECKING |
| 2ND | 1st | Engg Scales such as plain scale. |
| | 2nd | PRACTICE PLAIN SCALE |
| | 3rd | Diagonal scale. |
| | 4th | PRACTICE DIAGONAL SCALE |
| | 5th | Geometrical and Tangency constructions.(CURVES) |
| | 6th | PRACTICE CURVE& CHECKING |
| 3RD | 1st | Unit – II Orthographic projections |
| | 2nd | orthographic projection, First angle and Third angle method, |
| | 3rd | PRACTICE POINT PROJECTION |
| | 4th | PRACTICE POINT PROJECTION |
| | 5th | Conversion of pictorial view into Orthographic Views |
| | 6th | PRACTICE ORTHOGRAPHIC VIEWS |
| 4TH | 1st | PRACTICE ORTHOGRAPHIC VIEWS& CHECKING |
| | 2nd | PLAIN SURFACES, SLANTING SURFACES |
| | 3rd | PRACTICE OF PLAIN SCALES |
| | 4th | PRACTICE OF PLAIN SCALES |
| | 5th | PRACTICE OF SLANTING SURFACES |
| | 6th | PRACTICE OF SLANTING SURFACES& CHECKING |
| | 1st | Unit – III Isometric Projections |
| | 2nd | isometric projections. Isometric scale and Natural scale. |
| 5TH | 3rd | Isometric view and isometric projection. |
| | 4th | Illustrative problems related to objects containing lines, |
| | 5th | PRACTICE PROBLEMS OF LINES |
| | 6th | PRACTICE PROBLEMS OF LINES |
| 6TH | 1st | PRACTICE PROBLEMS OF LINES |
| | 2nd | PRACTICE PROBLEMS OF LINES& CHECKING |
| | 3rd | Unit – IV Free Hand Sketches of engineering elements |
| | 4th | Free hand sketches of machine elements: Thread profiles |
| | 5th | PRACTICE THREAD PROFILES |
| | 6th | nuts, bolts, |
| 7TH | 1st | PRACTICE NUTS AND BOLTS |
| | 2nd | set screws, washer |
| | 3rd | PRACTICE SET SCREWS, WASHER |
| | 4th | Free hand sketches of orthographic view |
| | 5th | PRACTICE ORTHOGRAPHIC VIEWS |
| | 6th | PRACTICE ORTHOGRAPHIC VIEWS& CHECKING |
| 8TH | 1st | Unit – V Computer aided drafting interface |
| | 2nd | Computer Aided Drafting: concept. |
| | 3rd | Hardware and various CAD software available. |
| | 4th | Components of AutoCAD : Title bar, standard tool bar |

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| | 5th | Saving the file, Opening an existing drawing file, |
| | 6th | PRACTICE AUTOCAD INTRODUCTION |
| 9TH | 1st | Setting up new drawing: Units, Limits |
| | 2nd | PRACTICE AUTOCAD INTRODUCTION |
| | 3rd | Unit – VI Computer aided drafting |
| | 4th | Draw basic entities like Line, Circle, Arc, Polygon, |
| | 5th | PRACTICE 2D DRAWINGS |
| | 6th | Ellipse, Rectangle, Multiline, PolyLine |
| 10TH | 1st | PRACTICE OF RECTANGLE,POLYLINE |
| | 2nd | Absolute coordinates& PRACTICE |
| | 3rd | Dimensioning: Linear, Horizontal Vertical, Aligned, |
| | 4th | PRACTICE OF DIMENSIONING |
| | 5th | Radius, Diameter,Angular Dimensions. |
| | 6th | PRACTICE OF ANGULAR DIMESION & SHEET SUBMISSDION |

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| Signature of Demonstrator | Signature of H.O.D | Signature of Principal |
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