**These are Area I am experienced in.**

**1.)Projection**

Principles, Standards, Conventions - Angle Projection, Symbols, Dimensions - 2D Geometric Constructions - 2D Geometric Constructions - Conic Curves ellipse by eccentricity method - Conic Curves ellipse by eccentricity method - Cycloids, Epicycloids – Hypocycloid - Involute of a Square, Circle – Spirals -Introduction to perspective projection with terminologies and concepts - Orthographic multiview and isometric projection - Perspective projection of a point, line - Perspective projection of a planes, solids -Orthographic multiview of point, line - Orthographic multiview of planes, solids -Isometric projection of a point, line - Isometric projection of planes, solids - Isometric to orthographic multiview sketching -Orthographic multiview to isometric sketch - Orthographic multiview projection of lines inclined to both planes - Orthographic multiview projection of planes inclined to planes, auxiliary projection - Projection of lines inclined to both the planes - true length, true inclinations, traces of lines - Projection of lines inclined to both the planes - true length, true inclinations, traces of lines - Finding shortest distance between a point and a plane - Shortest distance between two lines -shortest distance between point and plane - shortest distance between point and plane

**2.) Projection of solids using CAD software**

Introducing CAD Software, layers, - dimensions, tolerance, annotations - Create, modify, customize, print using CAD - Demo: Menu, Toolbars, Drawing Area, Dialog box, windows, Shortcut menus - Command Line, Status Bar, Different zoom methods, Create, Select, Erase objects - Draw straight lines, rectangle, polar, absolute, relative - Orthographic constraints, Ortho ON, snap to objects manually, automatically -drawing lines, arcs, circles, polygons, create, edit, use layers, extend lines - Dimensioning objects, annotations - Demo: drawing page, print, units/ scale/ limits settings, standards for dimensioning - ISO, ANSI Std. dimensioning, tolerancing - Projection of solid prisms and cylinders - inclined to both the planes -change of position method, reference line - method / auxiliary projections, - Projection of solid prisms and cylinders - inclined to both the planes - Change of position method - Projection of solid prisms and cylinders inclined to both the planes Reference line method - Auxiliary projections - Auxiliary projections - Viewing isometric and perspective views, shaded, wire-frame models - Oblique prismatic solids and its projections -Projection of solid pyramids and cones inclined to both the planes - change of position method and reference line method / auxiliary projections, - Projection of solid pyramids and cones inclined to both the planes -Change of position method - Projection of solid pyramids and cones inclined to both the planes - Change of reference line method - Auxiliary projections - Auxiliary projections - Viewing isometric and perspective views, shaded, wire-frame models - Oblique pyramidal solids and projections

**3.) Projections of combination of solids**

Combinations of solids, Constructive Solid Geometry(CSG), Boolean operations - Creating combination of solids, isometric, perspective views, shaded, wire-frame - Constructive Solid Geometry, Boolean operations, Creating combination of solids - isometric, perspective, shaded, wire-frame - Constructive Solid Geometry, Boolean operations, Creating combination of solids - isometric, perspective, shaded, wire-frame -Constructive Solid Geometry, Boolean operations, Creating combination of solids - isometric, perspective,shaded, wire-frame -Constructive Solid Geometry, Boolean operations, Creating combination of solids -isometric, perspective, shaded, wire-frame - 66 B.Tech/M.Tech(Integrated) Regulations 2021)- Volume-2- First Year Syllabi-Control copy Section of right regular solid with axis perpendicular to one principal planes and cutting plane perpendicular to any one - principle plane true shape of the section - Section of right regular solid with axis perpendicular to one principal planes and - cutting plane perpendicular to any one principle plane true shape of the section - Section of right regular solid with axis perpendicular to one principal planes and cutting plane perpendicular to any one - principle plane true shape of the section -Section of solids with axis inclined to both the planes and cutting plane perpendicular to any one principal plane only. - Sectional plan elevation, and sectional side-view of Building/ dwelling, include - windows, doors, fixtures, etc. - Building/ Dwelling drawing, Terminology, conventions, sectional plan and side-view of Building/ dwelling, include windows, -doors, fixtures, Sectional plan elevation, and sectional side-view of Building/ dwelling, include windows, doors, fixtures, etc. - Sectional plan elevation, and sectional side-view of Building/ dwelling, include windows, doors, fixtures, etc.-Sectional plan elevation, and sectional side-view of Building/ dwelling, include - windows, doors, fixtures, etc.- Sectional plan elevation, and sectional side-view of Building/ dwelling, include windows, doors, fixtures, etc.

**4.) Part Modeling and Drawing**

3D modelling, parametric, non- parametric, parts of CSG, surface, wireframe, shaded-Rendered models, background, shadows, multi-view, isometric, perspective views - 3D modelling, parametric, non-parametric, parts of CSG, surface, wireframe, shaded - Rendered models, background, shadows, multi-view, isometric, perspective views -Viewing models in multi-view, isometric and perspective views - Viewing models in multi-view, isometric, and perspective views - Modelling industrial part drawings - Modelling industrial part drawings -Design new components as a team - Design new components as a team - 3D Part to 2D Drawings geometric - dimensioning and tolerancing annotations - generating 2D from 3D models, printing drawings, generating sectional views - Geometric dimensioning and tolerancing annotations -Geometric dimensioning and tolerancing annotations - Generating 2D drawings from 3D models -Generating 2D drawings from 3D models Generating sectional views - Generating sectional views - Printing drawings to printer or as .pdf - Printing drawings to printer or as .pdf - Development of surfaces: un-cut, & cut right / oblique regular solids Simple position with cutting planes perpendicular to any one principal plane - Development of surfaces: un-cut, & cut right / oblique regular solids - Simple position with cutting planes perpendicular to any one principal plane - Development of surfaces: un-cut, & cut right / oblique regular solids - Simple position with cutting planes perpendicular to any one principal plane - Design of real time surface-development Design of real time surface-development - Design of real time surface-development -Design of real time surface-development

**5.) Assembly Modeling and Drawing**

Part/ component model creation for assembly.-Study of various widely used assembly of parts like flanged joint, universal joint etc. -Creation of parametric parts for assembly - non- parametric parts for assembly -Creation of parametric parts for assembly - non- parametric parts for assembly - Creation of parametric parts for assembly -non- parametric parts for assembly - Creation of parametric parts for assembly - non-parametric parts for assembly - Simple assembly of parts,- associated part and assembly - Simple assembly of parts, - associated part and assembly - Simple assembly of parts, - associated part and assembly - Simple assembly of parts, - associated part and assembly - Simple assembly of parts,-associated part and assembly Assembly Drawings: exploded view with assembly annotations part details -Printing assembly drawings to printer and as pdf -Exploded view with assembly annotations -part details -Exploded view with assembly annotations -part details -Exploded view with assembly annotations part details - Printing assembly drawings - Printing assembly drawings