

GUJARAT TECHNOLOGICAL UNIVERSITY
MANUFACTURING ENGINEERING
B. E. SEMESTER: III

Subject Name: **Manufacturing and Assembly Drawing**

Subject Code: **133405**

Sr. No	Course Content
1.	Technical Drawing Standard Indian Standard Code of practice for Engineering Drawing: General principles of presentation, conventional representation of dimensioning and sectioning, conventional representation of threaded parts, gears, springs and common features. Abbreviations and symbols used in technical drawings. Symbols and method of indication on the drawing for surface finish, welding and riveted joints.
2.	Fits And Tolerances Tolerance types and representation on the drawing - Fits types and selection for different applications - Basic hole systems - Basic shaft systems - Allowances. Geometric tolerances - Form and positional. Datum and datum features symbols used to represent geometric tolerances.
3.	Assembly Drawing Of Joints, Coupling And Bearings Preparation of drawing for keys and keyways, cotter joints, pin joints and screwed fasteners. Preparation of drawing for Couplings - Flange coupling and universal coupling, Bearings: Plummer block - Foot step bearing. Representation of tolerances in drawing.
4.	Production Drawing Preparation of production drawing for simple components, interpretation of production drawings
5.	Assembly Drawing Of Machine Elements Preparation of assembled views given parts details - Lathe tail stock - Lathe chuck - Connecting rod - Screw jack, machine vice, Square Turret tool holder for Lathe, tool head of shaper and stop valve. Representation of tolerances in drawing. Injection moulding die assembly for plastic products.

NOTE:

Examination must include an assembly drawing of machine elements.

Text Books:

1. Gopalakrishnan, K.R., Machine Drawing, Subash Publishers, Bangalore, 2000
2. Narayana, K.L., Kanniah, P. and Venkata Reddy, K., Production Drawing, New Age International, New Delhi, 2002

Reference Books:

1. Sidheswar Kannaiah, N., Sastry, P.V.V.V., Machine Drawing, Tata McGraw Hill, New Delhi, 1997
2. Bhatt, N. D., Machine Drawing, Charotar publishing house, Anand, 1999
3. Junnarkar, N. D., Machine Drawing, First Indian print, Pearson Education (Singapore) Pvt. Ltd., 2005
4. P.S.G. Design Data Book, Coimbatore, 2001
5. Revised IS codes: 10711, 10712, 10713, 10714, 9609, 1165, 10715, 10716, 10717, 11663, 11668, 10968, 11669, 8043, 8000