

Gautam Buddha University, Greater Noida
School of Engineering (Mechanical Engineering)

Degree	Course Name	Course Code	Marks:100
Integrated B. Tech. + M. Tech. / M.B.A.	Machine Drawing	ME 215	SM+EM 50+50
Semester	Credits	L-T-P	Exam.
III	3	1-0-3	3 Hours

Note: All drawing exercises should be performed on AutoCAD.

Unit – I

Introduction: Introduction to BIS Specification SP: 46 – 1988 Code of Engineering drawing – Limits; fits and tolerance (Dimensional and Geometrical tolerance); Surface finish representation. **(05 Hours)**

Unit – II

Orthographic Projection: Orthographic views from isometric views of machine parts / components; Sectioning of machine components. **(05 Hours)**

Unit – III

Gears: Gear terminology; I.S. convention representation of assembly of spur gears; Helical gears; Bevel gears; Worm and worm wheel. **(05 Hours)**

Unit – IV

Joints; Couplings and Engine Components: Bolted, riveted joints and welded joints; Cotter and knuckle joint; Different types of coupling; Crankshaft; Pulley; Piston and connecting rod. **(09 Hours)**

Unit – V

Assembly Drawings I: Assembly drawing with sectioning and bill of materials from given detailed drawings of assemblies: Lathe tail stock; Stuffing box; Pedestal bearing. **(11 Hours)**

Unit – VI

Assembly Drawings II: Assembly drawing with sectioning and bill of materials from given detailed drawings of assemblies: Steam stop valve; Drill jigs and Milling fixtures.

(10 Hours)

Note:

- 1. In the semester examination; the examiner will set two questions from unit –I & II (each 25 marks); taking one question from each unit. The students will be required to attempt any one question out of two questions.**
- 2. In the semester examination; the examiner will set two questions from unit –III & IV (each 25 marks); taking one question from each unit. The students will be required to attempt any one question out of two questions.**
- 3. In the semester examination; the examiner will set two questions from unit –V & VI (each 50 marks); taking one question from each unit. The students will be required to attempt any one question out of two questions.**

Recommended Books:

1. Machine Drawing; N. D. Bhatt and V. M. Panchal; Charotar Publishing House.
2. Engineering Graphics with AutoCAD; D. M. Kulkarni; A. P. Rastogi; A. K. Sarkar; PHI Learning Private Ltd.
3. Engineering Graphics using AutoCAD; T. Jeyapoovan; Vikas Publishing House.
4. A Text Book of Machine Drawing; P. S. Gill Pub.: S. K. Kataria & Sons.
5. Engineering Graphics with Auto CAD 2002; James D. Bethune; Pearson Education.
6. A Text Book of Machine Drawing Laxmi Narayana and Mathur; M/s. Jain Brothers; New Delhi.
7. Machine Drawing by N. Sidheshwar; Kannaieh; V. S. Sastry; Tata McGraw Hills; New Delhi.
8. AutoCAD Tutor for Engineering Graphics; Alan Kalameja; Autodesk Pr.