Engg. Graphics Drawing (ME – 1001)

Course Code	**ME– 1001**	Credits-6	**L- 2, T-0, P-4**	
Name of the Course	**Engg. Graphics Drawing**			
Lectures to be Delivered	66 (L= 22, P=44)			
Semester End Examination	*Max. Marks:* **100**	*Min. Pass Marks:* **40**		Maximum Time:3hrs
Continuous Assessment (based on sessional tests (2) 50%, Tutorials/Assignments 30%, Quiz/Seminar 10%, Attendance 10%)			*Max. Marks:* 50	*Min. Pass Marks: 50%*

Instructions

1. **For Paper Setters:** The question paper will consist of five sections A, B, C, D, and E. Section E will be Compulsory, it will consist of a single question with 10-20 subparts of short answer type, which will cover the entire syllabus and will carry 40% of the total marks of the semester end examination for the course. Section A, B, C and D will have two questions from the respective sections of the syllabus and each section will carry 15% of the total marks of the semester end examination for the course.
2. **For Candidates:** Candidates are required to attempt five questions in all selecting one question from each of the sections A, B, C and D of the question paper and all the subparts of the questions in section E. Use of non-programmable calculators is allowed.
3. This course will be conducted in drawing hall fitted with drawing tables and drafters.

Section A

Drawing Techniques: Various types of lines, principal of dimensioning, size and location as per IS Code of practice (SP-46) for general engg. Drawing. Practice of drawing, various types of lines and dimensioning exercises. Drawing exercises pertaining to symbols. Conventions and Exercise of lettering techniques. Free hand printing of letters and numerals in 3, 5, 8 and 12mm sizes, vertical and inclined at 75 degree. Instrumental lettering in single stroke. Linear Scale, Diagonal scale & vernier scale.
Projection Of Points, Lines And Planes: Concept of horizontal and vertical planes. First and third angle projections: projections of point and lines, true length of lines and their horizontal and vertical traces, projection of planes and their traces. Auxiliary planes.

Section B

Projections Of Solids: Right regular solids of revolution and polyhedrons etc. and their auxiliary views

Section – C

Sectioning Of Solids: Principal of sanctioning, types of sanctioning, and their practice on projection of solids, sectioning by auxiliary planes.
Isometric Projections: Concept of isometric views: isometric scale and exercise on isometric views.

Section D

Practice In: Orthographic projections
Development Of Surfaces: Development of surfaces of cylinders, cones, pyramid, prism etc. Exercises involving development of unique surfaces like Y-piece, hopper, tray, truncated pieces etc.
Intersection Of Surfaces: Intersection of cylinders, cones and prisms with their axes being vertical, horizontal or inclines. Exercise on intersection of solids-cylinder and cylinder, cylinder and cone, prism and prism.

Note: Some exercises in each Section should be done using Auto CAD.

Books:

1. N.D. Bhatt, Elementary Engineering Drawing.
2. P.S. Gill, Engineering Drawing & Engg. Graphics.
3. L.V. Lakshminarayan & R.S. Vaish. Engineering Graphics.
4. N.D. Bhatt and V.M. Panchal, Engineering Drawing Plane and Solid Geometry, 44th Edition 2002, Charotar Publishing House.
5. James D. Bethune, Engineering Graphics with AutoCAD 2002, Publisher – Pearson Education.
6. P.S. Gill, Engineering Graphics and Drafting, S.K. Kataria and Sons Millennium Edition.
7. T.Jeyapoovan, Engineering Graphics using AUTOCAD 2000, 1st Edition 2002, Vikas Publishing House.
8. K. Venugopal: Engineering Drawing and Graphics + AutoCAD, 4th Edition, New Age International Publishers Ltd. New Delhi.