PVP20

# **Department of Freshman Engineering**

# **Engineering Graphics**

CO2 Construct reference J CO3 Develop the CO4 Develop the CO5 Identify the environment Contribution PO1 PO2 CO1 2 2 CO2 3 3 CO3 2 2 CO4 2 2 CO5 2 Unit No.  Introd Graphic dimension a) C (generation of Contribution	conic sections orthographic planes. (L3) he isometric v he lateral surfa he appropriat ent. (L3) ution of Cour Streng	he course and cuproject iew for aces of e com	Corse, the girsolids.	ourse (e studentsed in f an observen ortentsed) that	Dutconnt will Engine bject whograp	hic product to the pr	Prer Tota Mar  to practice. position prepare  ent of Predium, 1 PO10 2 3 2	(L3) n is define the given rogram: Low) PO11 2 3 2	ned with e versa.	(L3) wing in nes & PSO1 1 2 2	to the
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a) C (gener b) C	Graphics and their significance- Conventions in drawing, lettering, dimensioning, BIS conventions.										
(gener b) C											
b) <b>C</b>	a) Conic sections: Construction of ellipse, parabola and hyperbola										
	(general method only)								CO1		
( c)	Cycloidal cur	-	-					id			
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different quadrants, lines inclined to one and both the reference planes, finding true length and inclination made by the line.								CO2			
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	<b>Sections of solids</b> : Section planes and sectional view of right regular Solids- cube, prism, cylinder, pyramid and cone. True shape of the								_		
		•	-					-			
	cube, prism	section. (Treatment limited to the solids perpendicular to one of the principal planes)									
4 Orthog	cube, prism (Treatment										

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#### **Department of Freshman Engineering**

	Isometric view to orthographic view. Isometric Projections: Principles		
	of Isometric projection- Isometric scale; <b>Isometric views</b> : lines, planes		
	and solids. (Treatment is limited to simple objects only)		
5	<b>Development of surfaces:</b> Development of lateral surfaces of right		
	regular solids-prism, cylinder, pyramid, cone and their sectional parts.	CO4	
	(Treatment limited to solids perpendicular to one of the principal planes)	CO4	
	Introduction to CAD: Basic drawing, editing and dimensioning		
	commands: line, polyline, circle, arc, polygon, ellipse, rectangle, erase,	CO5	
	undo, redo, snap, move, copy, rotate, scale, mirror, offset, layer, trim,	CO3	
	extend, fillet, chamfer, array, linear and angular dimension.		

#### **Learning Resources**

### **Text Books**

- 1. N.D. Bhatt, Engineering Drawing, 53/e, Charotar Publishers, 2016.
- 2. K.L. Narayana&P.Kannaiah, Engineering Drawing, 3/e, Scitech Publishers, 2012

#### Reference Books

- 1. Dhanajay A Jolhe, Engineering Drawing, Tata McGraw-Hill,2009.
- 2. Shah and Rana, Engineering Drawing, 2/e, Pearson Education, 2009.
- 3. K. Venugopal, Engineering Drawing and Graphics, 6/e, New Age Publishers, 2011.
- 4. K.C. John, Engineering Graphics, 2/e, PHI,2013.
- 5. Basant Agarwal and C.M. Agarwal, Engineering Drawing, TataMcGrawHill,2008.

#### e- Resources & other digital material

- 1. http://www.youtube.com/watch?v=XCWJ XrkWco, Accessed on 01-06-2017.
- 2. http://www.me.umn.edu/courses/me2011/handouts/drawing/blanco-tutorial.html#isodrawing, Accessed on 01-06-2017.
- 3. http://www.slideshare.net, Accessed on 01-06-2017.
- 4. http://edpstuff.blogspot.in, Accessed on 01-06-2017.