

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III • EXAMINATION – WINTER • 2014****Subject Code: 2132001****Date: 30-12-2014****Subject Name: Industrial Drafting****Time: 02.30 pm - 05.00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1 (a)** Explain the need of sectional views. Mention various types of sectional views. **07**
Explain any one of them with suitable example.
- (b)** Draw the conventional representation for indicating the oil, steel, bevel gear, interrupted views, bearings, wood and tin? **07**
- Q.2 (a)** Differentiate between machine drawing and production drawing. **07**
- (b)** A vertical cone, diameter of base 75 mm and axis 100 mm long, is completely penetrated by a cylinder of 45 mm diameter. The axis of the cylinder is parallel to the H.P. and the V.P. and intersects the axis of the cone at a point 28 mm above the base. Draw the projections of the solids showing curves of intersection. **07**
- OR**
- (b)** A vertical square prism, base 50 mm side is completely penetrated by a horizontal square prism, base 35 mm side so that their axes are 6 mm apart. The axis of the horizontal prism is parallel to the V.P., while the faces of both prisms are equally inclined to the V.P. Draw the projections of the prisms showing lines of intersection. **07**
- Q.3 (a)** Mention various forms of nuts. Describe any two of them with sketch. **07**
- (b)** Draw and explain the rag foundation bolt. **07**
- OR**
- Q.3 (a)** Enlist various locking arrangement of nuts. Explain any two of them with sketch. **07**
- (b)** Draw two views of a 24 mm diameter stud, 100 mm long, with a castle nut and a split pin. **07**
- Q.4 (a)** Explain Gib and Cotter Joint with neat sketch. **07**
- (b)** Explain Split-muff Coupling with neat sketch. **07**
- OR**
- Q.4 (a)** Explain Bush – Pin Coupling with neat sketch. **07**
- (b)** With rough sketch explain the working of fast and loose pulley. **07**
- Q.5 (a)** Explain the following terms: **07**
Tolerance, Limits, Deviation, Basic Size, Design Size, Dimensional Tolerance, Geometrical Tolerance
- (b)** Enlist the commands available in draw tool box. Explain any two of them. **07**
- OR**
- Q.5 (a)** Draw at least three methods of writing tolerances when two parts are assembled together. **07**
- (b)** Mention the advantages and disadvantages of CAD. **07**
