

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III EXAMINATION – SUMMER 2025****Subject Code:3132001****Date:29-05-2025****Subject Name: Industrial Drafting****Time:02:30 PM TO 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.
4. Simple and non-programmable scientific calculators are allowed.

		Marks
Q.1	(a) Define production drawing. Give two examples.	03
	(b) Classify machine, part, and assembly drawings with examples.	04
	(c) Draw the conventional representation of Steel, Petrol, Lead, Glass, Stoneware, Asbestos, Wood.	07
Q.2	(a) List any three conventions used for representing machine components.	03
	(b) Sketch standard thread profiles used for fastening.	04
	(c) A vertical square prism, base 55 mm side is completely penetrated by a horizontal square prism, base 40 mm side so that their axes are 8 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
	OR	
	(c) A vertical cone, base 85 mm diameter, axis 100 mm long, is penetrated by a horizontal cylinder of 40 mm diameter, the axis of which is 25 mm above the base of the cone, parallel to the VP and 6 mm away from the axis of the cone. Draw the projections, showing lines of intersection.	07
Q.3	(a) Differentiate between full and half sectional views.	03
	(b) Explain Sectioning Convention with suitable example.	04
	(c) Explain Machine Drawing, Part Drawing, and Production Drawing.	07
	OR	
Q.3	(a) State the conventional representation of internal threads in a section.	03
	(b) Explain the concept of fit. List and explain any two types of fits with examples	04
	(c) Draw the conventional representation of bearing, worm wheel, Splined shafts, Interrupted views, Semi-elliptic leaf spring with eyes, Spur gear, and Bevel gear.	07
Q.4	(a) Give types of locking arrangements for nuts.	03
	(b) Draw a neat sketches of chain dimensioning and parallel dimensioning.	04
	(c) Explain various types of nuts with their specific applications.	07
	OR	
Q.4	(a) What is the use of a knuckle joint?	03
	(b) Explain with neat sketch: Taper keys, Sunk taper key.	04
	(c) Enlist various methods of preventing rotation of a bolt while screwing a nut on or off it. Explain any two of them with rough sketch.	07

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| Q.5 | (a) | What is meant by surface roughness? | 03 |
| | (b) | How is surface roughness depicted in engineering drawings? | 04 |
| | (c) | Explain the various commands in the draw tool box of AUTO CAD. | 07 |
| OR | | | |
| Q.5 | (a) | What is the role of AutoCAD in industrial drafting? | 03 |
| | (b) | Write the advantages of using CAD tools over manual drafting. | 04 |
| | (c) | Explain the various commands in the modify tool box of AUTO CAD. | 07 |
