Seat No.:	Enrolment No.
Deat 110	

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-III (OLD) - EXAMINATION - SUMMER 2017

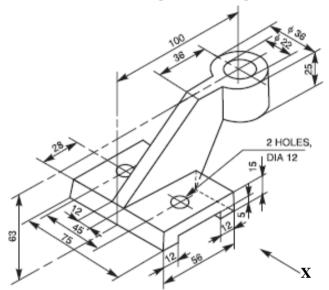
Subject Code: 132001 Date: 02/06/2017

Subject Name: Industrial Drafting

Time: 10:30 AM to 01:30 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) Give classification of drawing. Differentiate between assembly drawing and part drawing.
 - (b) Draw the conventional representation for indicating the oil, steel, concrete, tin, square on the shaft, holes on circular pitch, splined shaft and worm.
- Q.2 (a) Draw the following view of the given figure by using first angle projection method (a) Sectional front view (b) Top view (c) Right hand side view.



- (b) A vertical cylinder diameter 40 mm and height 80 mm is resting on H.P on its base. It is penetrated by another cylinder diameter 30 mm and height 80 mm. The axes of both cylinders are parallel to V.P and bisects each other at right angles. Draw the projections showing curves of intersection.
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- (b) A square pipe having 40 mm base sides has similar branch pipe having 25 mm base sides. Axis of main pipe is vertical while the axis of the branch pipe intersects the axis of main pipe at angle of 45°. Surfaces of both pipes are equally inclined to V.P. Draw projections and show lines of intersection.
- Q.3 (a) Describe the different types of sectional views. Explain each one of them by a viitable example.
 - (b) Differentiate between right and left hand threads. Explain the coupler nut with neat sketch.

OR

- Q.3 (a) Explain the need of foundation bolt. Enlist various types of foundation bolt. 07 Explain any one of them with rough sketch.
 - (b) Draw neat freehand sketches in good proportions to indicate locking 07 arrangement for a hexagonal nut using (1) Locknut (2) Split pin.

Q.4	(a)	Sketch orthographic views of a spigot and socket cottered joint for round shaft.	07
	(b)	Differentiate between	07
		(1) Permanent fasteners and Temporary fasteners	
		(2) Internal threads and External threads	
		OR	
Q.4	(a)	Show with the help of sketch the following features on a V-thread section.	07
		Thread angle, depth of thread, angular depth, root, crest, pitch.	
	(b)	Give classification of keys and draw free hand sketches of a Gib head key and wood ruff key.	07
Q.5	(a)	Define limits, fits and tolerances. Differentiate between hole basis system and shaft basis system for different fits.	07
	(b)	Explain the advantages and disadvantages of Computer Aided Drafting(CAD).	07
		OR	
Q.5	(a)	Enlist the various commands available in modify tool box of Autocad. Explain any three of them by giving suitable example.	07
	(b)	Explain with the help of neat sketches of symbols Straightness, Flatness, Perpendicularity, Cylindricity and Concentricity.	07
