## **GUJARAT TECHNOLOGICAL UNIVERSITY** BE - SEMESTER-III • EXAMINATION – SUMMER 2013

Subject Code: 132001

Subject Code: 152001 Subject Name: Industrial Drafting Time: 02.30 pm - 05.30 pm Date: 29-05-2013

**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)
- (a) Given below is the plan. Draw
  (b) at least two possible elevations.



Given below is the elevation. Draw at least two possible plans.



- (b) Give classification of drawing. Differentiate between assembly drawing and 07 part drawing.
- Q.2 (a) Two equal size pipes, diameter 60 mm, main pipe vertical and branch pipe 07 inclined at 30° to horizontal are connected with their axes intersecting. Draw the projections of connected pipes, when plane containing two axes is parallel to V.P.
  - (b) What is prevention of rotation of bolt? Draw at least two different types of 07 such bolts.

OR

- (b) Draw the free hand sketch for the conventional representation of glass, concrete, 07 splined shaft and bearing.
- Q.3 (a) Draw neat freehand sketches in good proportions to indicate locking 07 arrangement for a hexagonal nut using (i) lock nut (ii) split pin.
  - (b) Differentiate between

(ii)

- (i) Permanent fasteners and Temporary fasteners
  - Internal threads and external threads

## OR

Q.3	<b>(a)</b>	Sketch any two foundation bolts indicating necessary proportions taken.	07
	<b>(b)</b>	Differentiate between	07

- (i) Single start thread and multi start thread
- (ii) Lead and pitch

Q.4	Draw according to first angle projection method:	14
	1) Sectional side view taken along X-X.	

- 1) Sectional side view t
- 2) Front view
- 3) Plan

07

07



OR

Q.4	(a)	Give classification of keys and draw free hand sketches of any three.	07
	(b)	Prepare a dimensioned sketch of a sleeve cotter joint for rod diameter 25mm.	07
Q.5	(a) (b)	Explain following terms: limits, tolerance, deviation Explain hole based and shaft based system for fits. With the help of example explain different methods of placing limit dimensions.	07 07

OR

- Q.5 (a) Explain the advantages and disadvantages of a Computer Aided Drafting 07 (CAD).
  - (b) List the commands step by step used in context of Auto CAD to draw the 07 following figure.



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