

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER– III (New) EXAMINATION – WINTER 2019****Subject Code: 2132001****Date: 28/11/2019****Subject Name: Industrial Drafting****Time: 02:30 PM TO 05:30 PM****Total Marks: 70****Instructions:**

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

MARKS

- Q.1** (a) What is the conventional representation for indicating the sections of glass, wood and zinc? **03**
- (b) Mention various types of sectional views. Explain the revolved section with suitable example. **04**
- (c) What is a T-bolt and how is it used? **07**

- Q.2** (a) Explain the aligned and unidirectional system of dimensioning. **03**
- (b) What is the conventional representation for indicating the internal screw threads, bearings, interrupted views and spur gear? **04**
- (c) Prepare a dimensioned sketch, in two views, of a socket and spigot joint for two 30 mm diameter rods. **07**

OR

- (c) Draw a hexagonal nut using a rough rule dimensions for M20 nut. **07**
- Q.3** (a) Differentiate between machine drawing and production drawing. **03**
- (b) Classify the assembly drawing. Explain any two of them. **04**
- (c) A vertical pipe of 60 mm diameter has a branch of 30 mm diameter. The axis of the branch is inclined at 45° to the ground, parallel to the V.P. and is 15 mm away from the axis of the main pipe. Draw the projections of the pipes showing the curve of intersection. **07**

OR

- Q.3** (a) Draw ACME threads. **03**
- (b) Draw the square threads. Mention few applications of it. **04**
- (c) Enlist the methods of preventing the rotation of bolt while screwing a nut on or off it. Explain any two with suitable diagram. **07**
- Q.4** (a) What is the need of washer? **03**
- (b) Mention the various types of nuts and enlist their applications also. **04**
- (c) Explain with the aid of sketches, the use of **07**
1. Woodruff key
 2. Round key

OR

- Q.4** (a) Explain unilateral and bilateral tolerances. **03**
- (b) Differentiate between flexible and rigid couplings. **04**
- (c) A vertical cylinder, diameter of base 50 mm and height 70 mm, is resting on H.P. on its base. It is penetrated by a horizontal cylinder, diameter of base 35 mm and height 70 mm. Axes of two cylinders bisect each other at right angles. Draw their projections showing on them curves of intersection assuming the axis of penetrating cylinder parallel to V.P. **07**

- Q.5 (a) Explain clearance fit with suitable examples. 03
 (b) Explain the hole basis and shaft basis systems. 04
 (c) Enlist various commands available in draw tool box of AUTOCAD. 07
 Explain any two in detail.

OR

- Q.5 (a) Why V-pulleys are used? 03
 (b) What are the advantages of AUTOCAD? 04
 (c) Draw according to the first-angle projection method: 07
 1. Sectional front view, along section A-A
 2. Top view
 3. Side view from the right


