

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-III (OLD) EXAMINATION – WINTER 2017

Subject Code:132001
Date:17/11/2017
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) Explain any two assembly drawings with neat sketch. **07**
 (b) Draw missing line or lines, full or dotted, in the orthographic views of the objects shown in Figure below. The answer must be supported by the rough sketch of an isometric view of the objects, without which no credit will be given for the answer. **07**



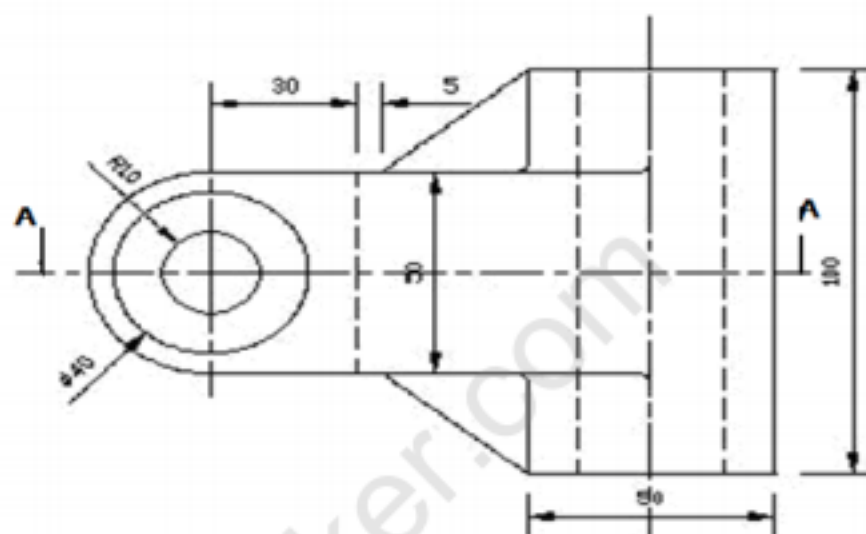
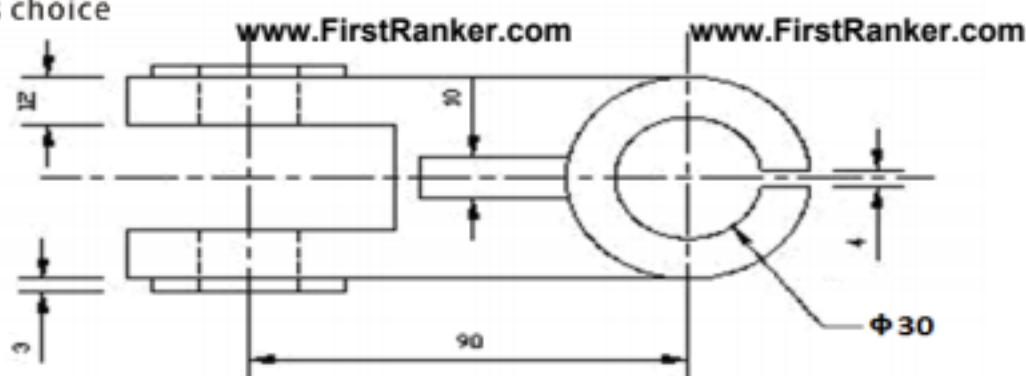
- Q.2** (a) What is the conventional representation for indicating the sections of glass, marble, bearings, interrupted views, spur gear, lead and oil? **07**
 (b) A square prism, side of base 50 mm and height 85 mm, is resting on H.P. on its base with all rectangular faces equally inclined to V.P. It has a horizontal square hole of 30 mm side with its axis parallel to V.P. and 10mm in front of the axis of the vertical prism. Flat faces of the hole are equally inclined to H.P. Draw the projections and show the lines of intersection. **07**

OR

- (b) A cylindrical pipe of 30 mm diameter has a similar branch of the same size. The axis of the branch intersects that of the main pipe at an angle of 45° . Draw the projections, when the two axes lie in a plane parallel to the VP, and the axis of the main pipe is vertical. Assume suitable lengths of pipes. **07**
- Q.3** (a) Mention various locking arrangement of nuts. Explain any two of them in detail with rough sketch. **07**
 (b) Explain the revolved section and half section with suitable example. **07**

OR

- Q.3** (a) Draw dimensional sketches of the following forms of screw threads: **07**
 1. Acme thread 2. Buttress thread
 (b) Draw according to first angel projection method: **07**
 • Sectional front view along A-A
 • Side view from the left



- Q.4 (a) Explain the use of eye bolt and stud bolt with rough sketch. 07
 (b) Why hexagonal nuts are preferred over other shapes of nuts? Enlist five varieties of nuts. Mention their typical uses. 07

OR

- Q.4 (a) Explain with the aid of sketches, the use of saddle keys and sunk keys. 07
 (b) Draw neat sketch of a cotter joint with a gib by stating its applications. 07

- Q.5 (a) Explain the advantages of a Computer Aided Drafting (CAD). Explain the surface roughness with symbol. 07
 (b) Explain three methods of placing limit dimensions on the drawing with rough sketch. 07

OR

- Q.5 (a) Enlist the various commands available in Modify tool box of AUTO CAD. Explain any two of them by giving suitable example. 08
 (b) With help of sketches show the following: 06
 1. Circularity tolerance
 2. Flatness tolerance
 3. Radial Run-out
