

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-III (OLD) EXAMINATION – WINTER 2017****Subject Code:133405****Date:29/11/2017****Subject Name: Manufacturing and Assembly Drawing****Time: 10:30 AM to 01:00 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)** Define Tolerance, Unilateral Tolerance, and Bilateral Tolerance with suitable sketches. **07**

**(b)** What is a production drawing? Why production drawings must be prepared as per standard. **07**

**Q.2 (a)** Name the different types of Rivet Heads. What is the function of a cover plate in riveted joints? **07**

**(b)** Differentiate between lap joint and butt joint, Chain riveting and zigzag riveting. **07**

**OR**

**(b)** Explain about Hole basis system with the help of a suitable example. **07**

**Q.3 (a)** Draw the conventions for following machine elements: **07**  
i) Ratchet and pinion. ii) Holes on a linear pitch.  
iii) Helical Torsion Spring. iv) Disc spring stacked in parallel.

**(b)** Draw to 1:1 scale, the top view and sectional front view of a single riveted butt joint with double cover plates. The thickness of plates is 9 mm. Show at least three rivets in each row. Indicate all dimensions. Use snap head rivets. **07**

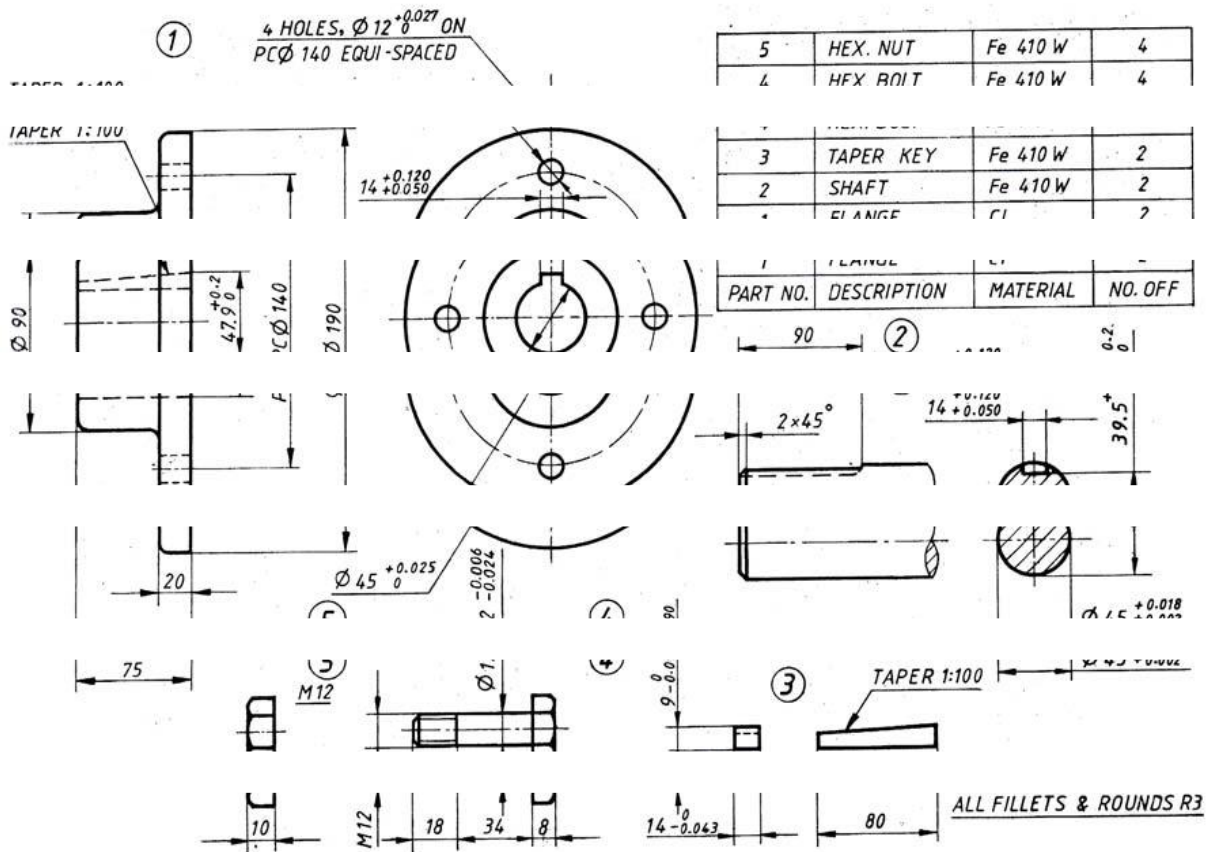
**OR**

**Q.3 (a)** Define the following: **07**  
i) Basic Size, ii) Actual Size, iii) Tolerance, iv) Deviation.

**(b)** Define fit. Classify fits. Briefly explain about them. **07**

**Q.4** Fig.1 shows the detail drawing of the different parts of a Cotter Joint with Sleeve. Assemble all the parts and draw the front view in Section. **14**





All Dimensions in mm  
Details of Flanged Coupling — Unprotected Type  
Fig. 2

www.FirstRanker.com

