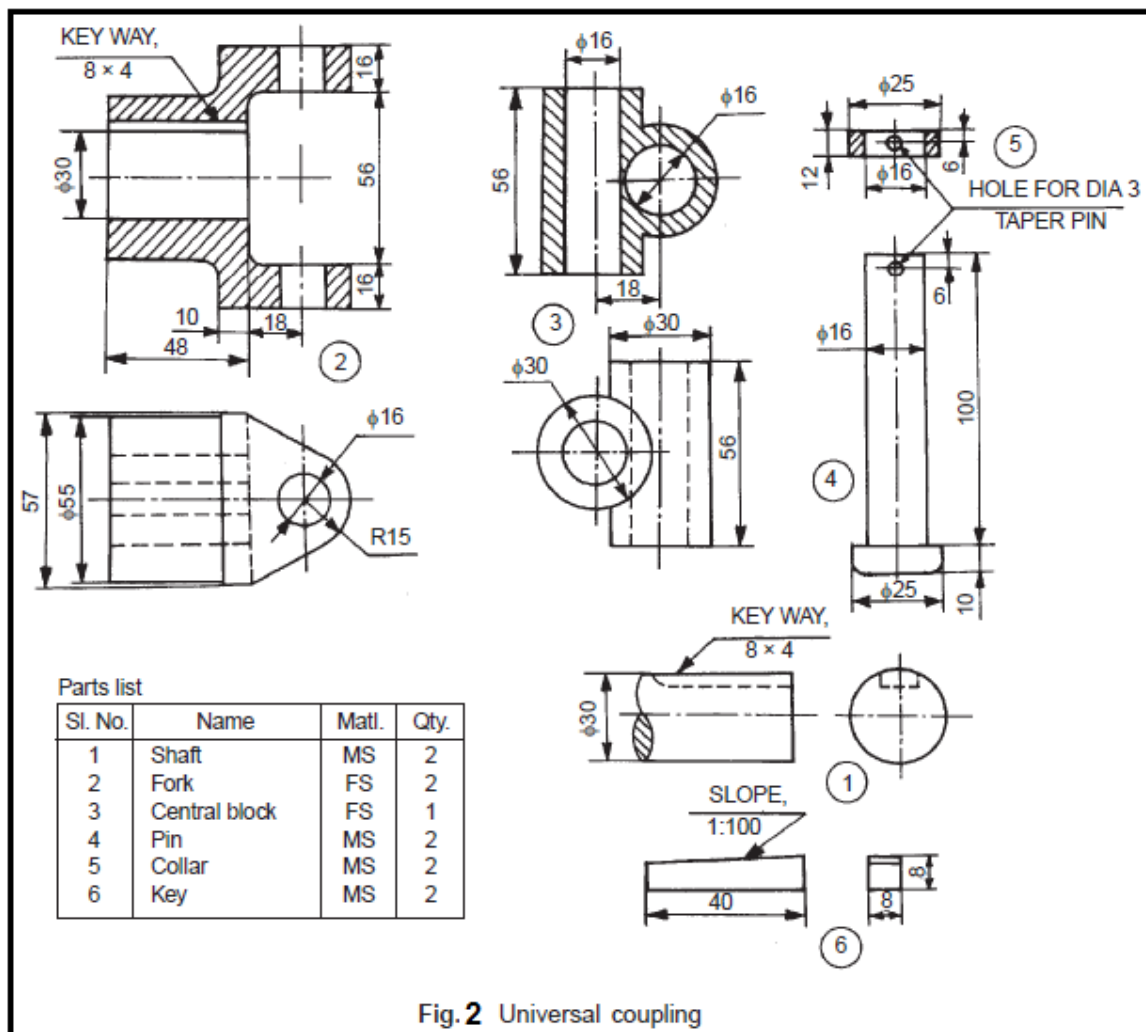
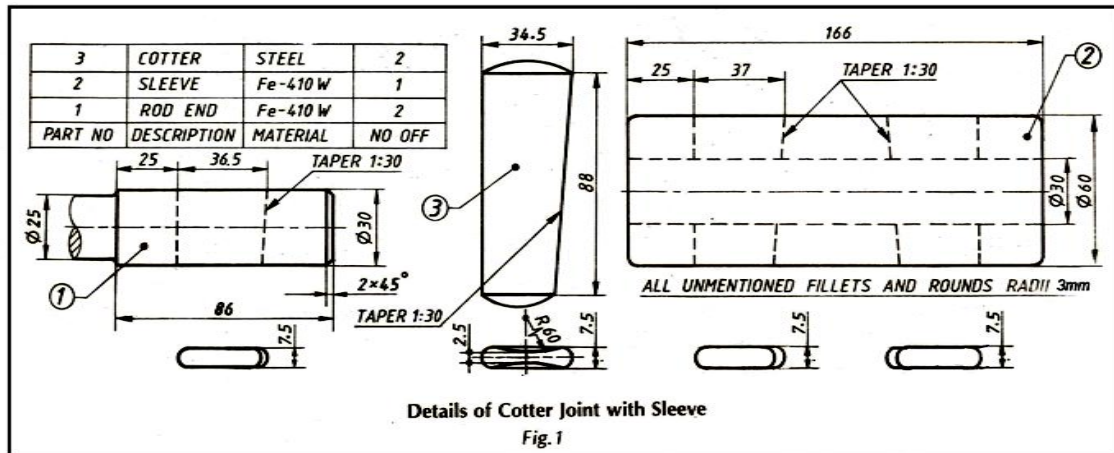


GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III • EXAMINATION – SUMMER 2013****Subject Code: 133405****Date: 04-06-2013****Subject Name: Manufacturing & Assembly Drawing****Time: 02.30 pm - 05.00 pm****Total Marks: 70****Instructions:**

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

- Q.1** (a) What are the Abbreviations for Centre Line, Constant, Figure, Radius, Tolerance, Cast Steel and High Carbon Steel? **07**
- (b) Draw the conventions for Ratchet and Pinion, Bearing, Holes on a Circular Pitch, Tension Spring & Disc Spring. **07**
- Q.2** (a) Define Tolerance, Unilateral Tolerance, and Bilateral Tolerance with suitable sketches. **07**
- (b) Define Hole Basis system. Why the Hole basis system is Preferred? **07**
- OR**
- (b) Draw the top view & sectional front view of a single riveted butt joint with double cover plates. Take the thickness of the butting plates as 12mm and the nominal diameter of the rivet as 20 mm. Indicate all the dimensions. **07**
- Q.3** Draw a feather key locked to a shaft of 40mm diameter fastened to a boss. Show the noncircular view of assembly in half section. Fully dimension the drawing. **14**
- OR**
- Q.3** Draw the front view in section of assembled views of a Cotter joint with Sleeve, details are shown in Fig 1. **14**
- Q.4** (a) What is a key and what for it is used? **07**
- What is the difference between a saddle key and a sunk key?
- (b) What is a production drawing? Why production drawings must be prepared as per standard. **07**
- OR**
- Q.4** The details of a universal coupling are shown in Fig 2. Assemble the parts & draw the front view in section. **14**
- Q.5** The details of a Plummer Block are shown in Fig 3. Assemble the parts & draw the front view in section. **14**
- OR**
- Q.5** (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 butte joint, Chain riveting and zig-zag riveting. **07**



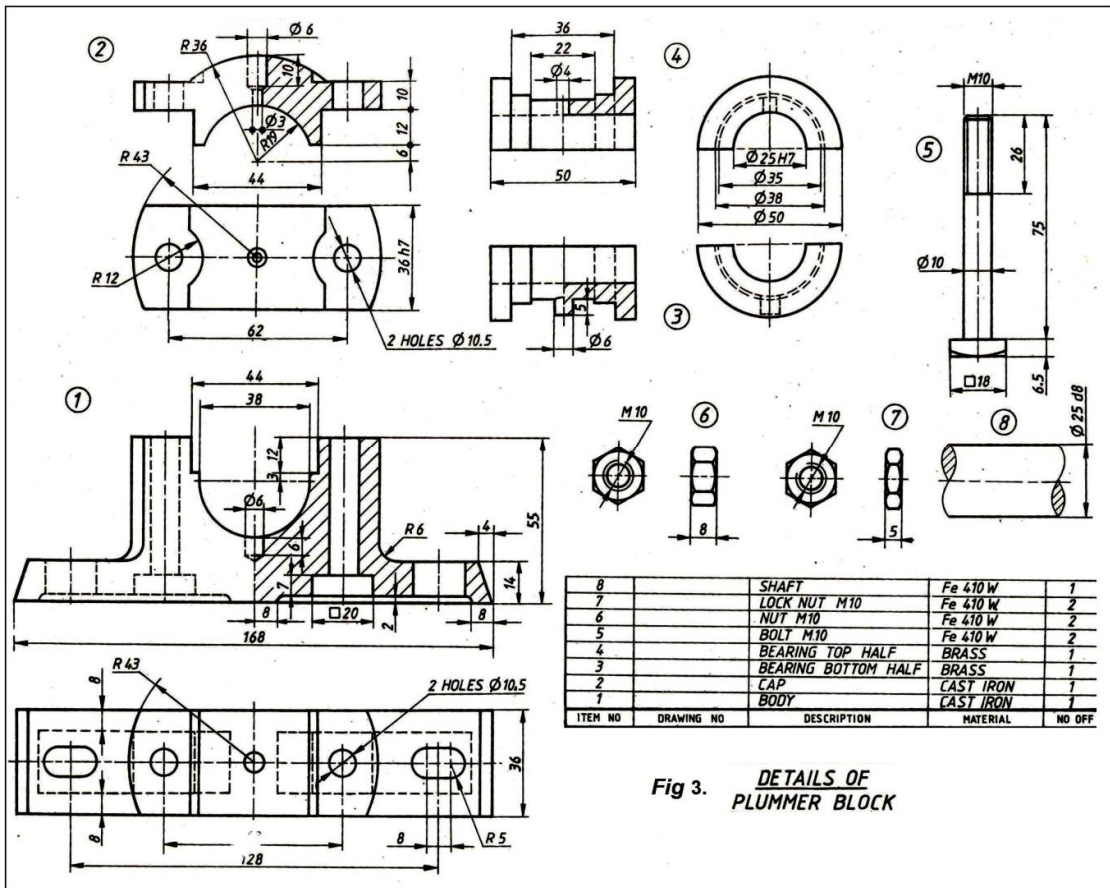


Fig 3. DETAILS OF PLUMMER BLOCK