

**Total No. of Questions: 07**

**B.Tech. (Marine Engineering) (2013 Onwards) /**

**B.Tech. (ME) (2011 Onwards) (Sem. – 3)**

**MACHINE DRAWING**

**M Code: 59113**

**Subject Code: BTME-303**

**Paper ID: [A1140]**

**Time: 3 Hrs.**

**Max. Marks: 60**

**INSTRUCTIONS TO CANDIDATES:**

1. **SECTION-A is COMPULSORY** consisting of **NINE** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FOUR** questions carrying **FOUR** marks each and students have to attempt any **THREE** questions.
3. **SECTION-C** contains **TWO** questions carrying **THIRTY** marks each and students have to attempt any **ONE** question.

**SECTION A**

1. a) Sketch the five types of line used in machine drawing.  
b) Why we need sectional views?  
c) How do you classify various types of fits?  
d) Draw edge and corner welding joints.  
e) Under what circumstances cotter joints are commonly used?  
f) What is blow of cock?  
g) Draw a view of piston and show its important parts.  
h) Why are collars provided on the brasses?  
i) What is the function of a tool post?

### SECTION B

2. Show a double riveted Lap joint (chain riveting) with the help of elevation and plan.
3. Name the various form of V threads and give full details of any one form.
4. Make a proportionate free hand sketch of a cone clutch.
5. Draw the free hand front view (upper half in section) of a spigot and socket pipe joint.

### SECTION C

6. Figure 1 show the detail of a universal coupling. Assemble the given components and draw the front view (Lower half in section) and top view of assembly.
7. Figure 2 show the detail of a screw jack. Assemble the given components and draw the front view (Left half in section) and top view of assembly.

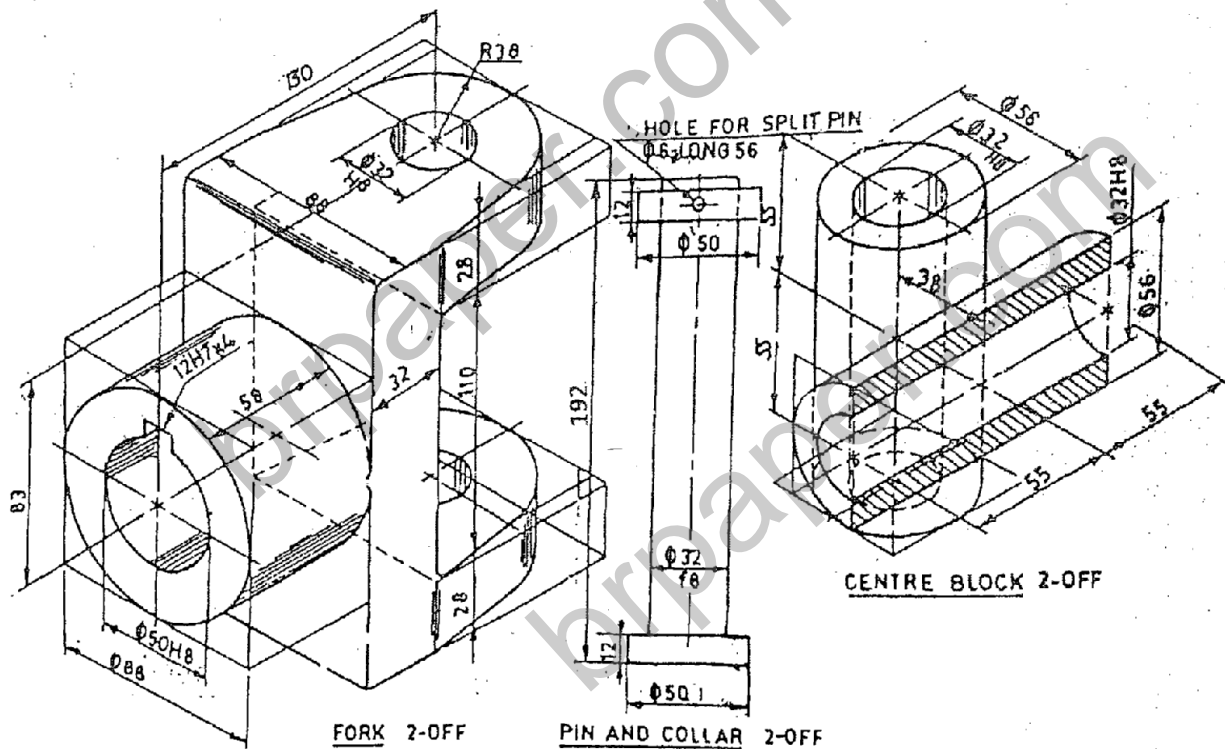


Fig 1: Universal Coupling

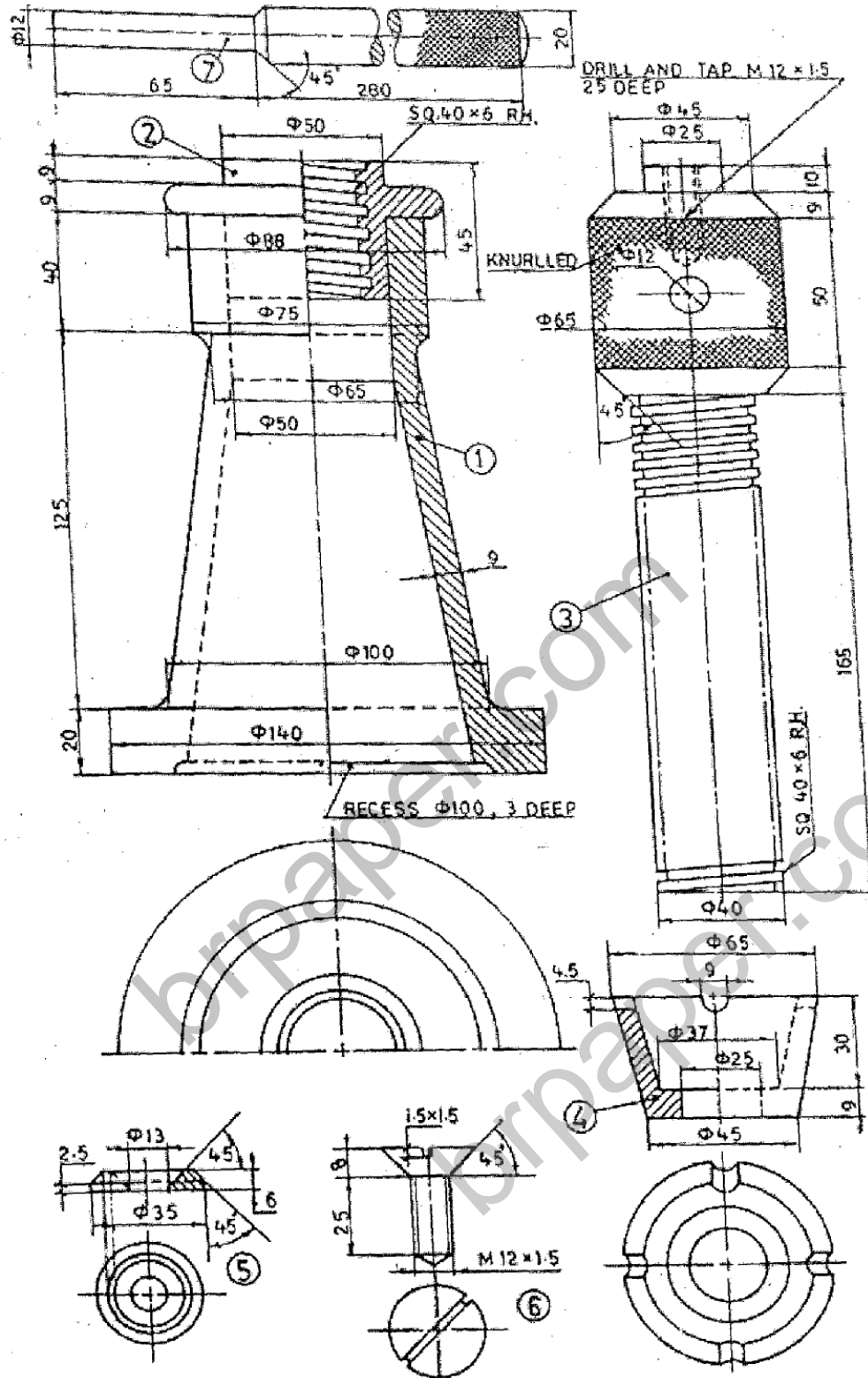


Fig 2. Detail of screw jack