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Total No.of Pages:04

**B.TECH, MAY –2014**  
**MACHINE DRAWINGS**  
**Paper Code (BTAE-306)**  
**Paper Id. [A1156]**

Time Allowed: 4 hrs

Maximum Marks: 60

**Instructions to Candidates:** There are three sections in this question paper. Attempt **all the questions** from **Section-A**; **any four** questions from **Section-B**; and **any two** questions from **Section-C**.  
**Note: First angle projection to be used. You may assume any missing dimension.**

**Section -A**

- |        |   |   |
|--------|---|---|
| Q1.(a) | With suitable sketch, explain the method of dimensioning of i) circle ii) Angle                         | 2 |
| (b)    | Draw conventions for i) internal threads ii) gun metal  | 2 |
| (c)    | Draw symbols to represent removal of material by machining.   | 2 |
| (d)    | What is difference between a 'go limit' and 'not go' limit.   | 2 |
| (e)    | What do you understand by pitch of a thread?  | 2 |
| (f)    | What are the advantages of riveted joints?  | 2 |
| (g)    | Draw symbols for i) convex double-V butt joint ii) Fillet weld  | 2 |
| (h)    | What are multi start threads? Where these are used and why?   | 2 |
| (i)    | Why the ends of the overlapping plates in riveted joint are beveled? State the usual angle of beveling. | 2 |
| (j)    | What is a stud or stud bolt?  | 2 |

**Section-B**

- |     |   |   |
|-----|---|---|
| Q2. | Explain different methods of dimensioning with the help of figures.   | 5 |
| Q3. | Draw profile of knuckle threads by taking pitch of 20 mm. Clearly show the calculations and show dimensions on the drawing. | 5 |
| Q4. | Draw free hand sketch of single plate friction clutch.  | 5 |
| Q5. | Draw free hand front view (upper half in section) of a gib and cotter joint.  | 5 |
| Q6. | Explain different methods to draw a circle in auto CAD.   | 5 |

**Section-C**

- |     |  |    |
|-----|--|----|
| Q7. | Assemble the parts of <b>Screw jack</b> given in Fig.1 and draw the following views:<br>i) Elevation (Right Half in Section)<br>ii) Top view | 10 |
| Q8. | Assemble the parts of a <b>Stop valve</b> given in Fig.2 and draw the following views:<br>i) Elevation right half in section<br>ii) Plan     | 10 |
| Q9. | Assemble the parts of a <b>Plummer block</b> given in Fig.3 and draw the following views:<br>i) Elevation right half in section<br>ii) Plan  | 10 |



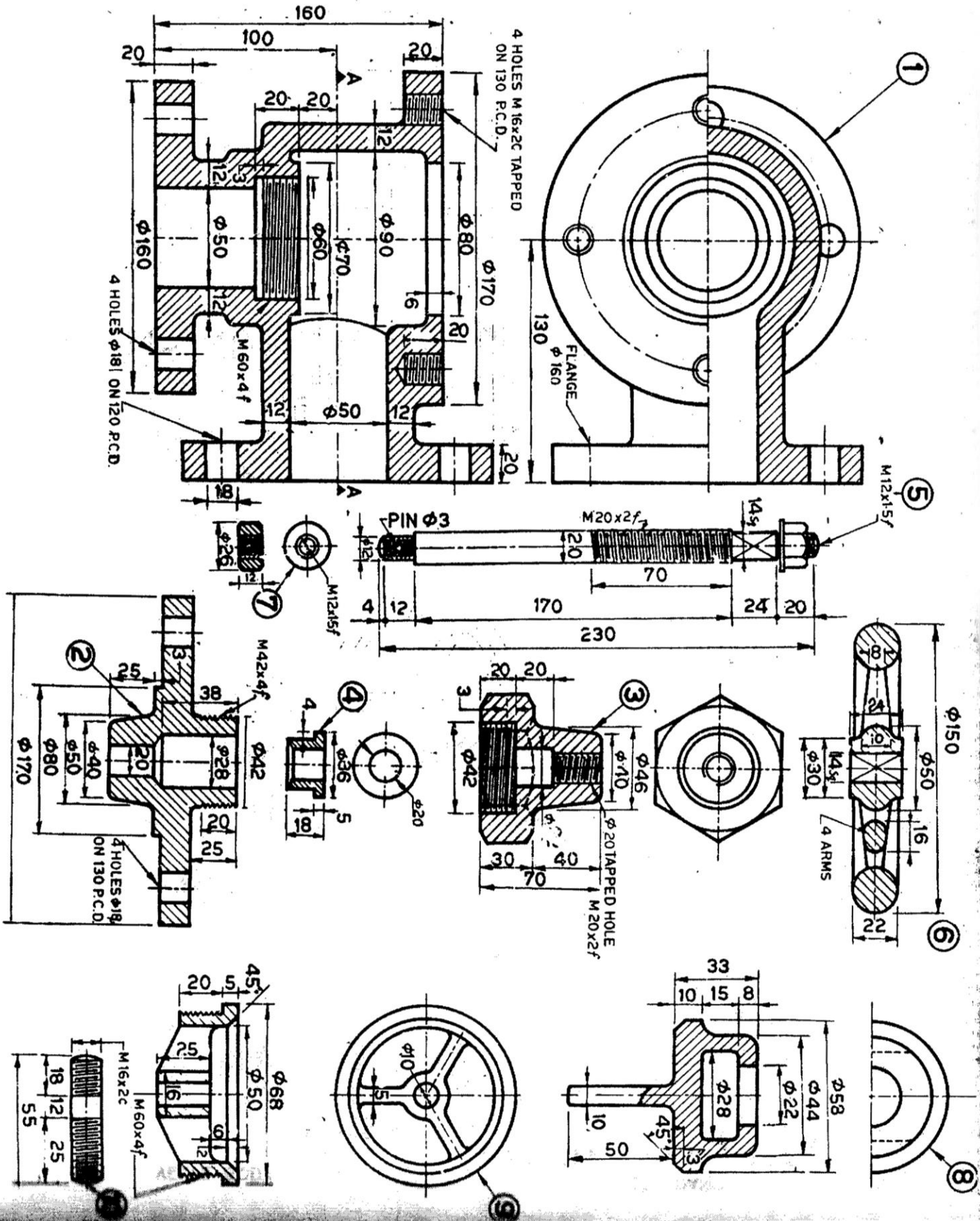


Fig. 2 : 50mm Stop valve

