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**Third Semester B.E. Degree Examination, December 2018
(ME/MA)**

COMPUTER AIDED MACHINE DRAWING

Time: 3 Hours

Max. Marks: 100

- Note:** 1. Answer any ONE question from each of the parts A, B and C.
2. Use **FIRST ANGLE** projection only.
3. If any data is missing it may be suitably assumed and mentioned.
4. All the calculations should be on answer sheet supplied.
5. All the dimensions are in mm.
6. Drawing instruments may or may not be used for sketching.
7. **Part C Assembled View should be in 3D and other 2 views in 2D.**

PART - A

- Q.No.1** Using First Angle Projection, Draw the Orthographic Views of the object shown in Fig.1 below. **(25 Marks)**

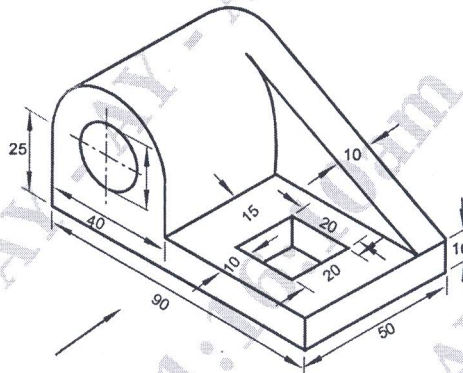


Fig.1

- Q.No.2** Draw the two views of the hexagonal bolt and nut for 30mm diameter bolt. Take length of the bolt as 100 mm. **(25 Marks)**

PART - B

- Q.No.3** Draw the sectional front view and top view of double riveted lap joint with chain riveting. The thickness of the plate is 10mm. show at least three rivets in each row. Indicate all the dimensions. Use snap head rivets. **(25 Marks)**
- Q.No.4** Draw sectional front view and side view of a Oldham's coupling by taking the shaft diameter 20mm, indicate all dimensions. **(25 Marks)**

PART - C

Q.No.5 Figure 2 shows the details of a "SCREW JACK". Assemble the parts and show the following views.

- a. Half sectional front view showing the right half in section.
 - b. Top view
- (50 Marks)**

Q.No.6 Figure 3 shows the part drawing of a "TAIL-STOCK". Assemble the Parts and show the following views.

- a. Sectional front view
 - b. Top view
- (50 Marks)**

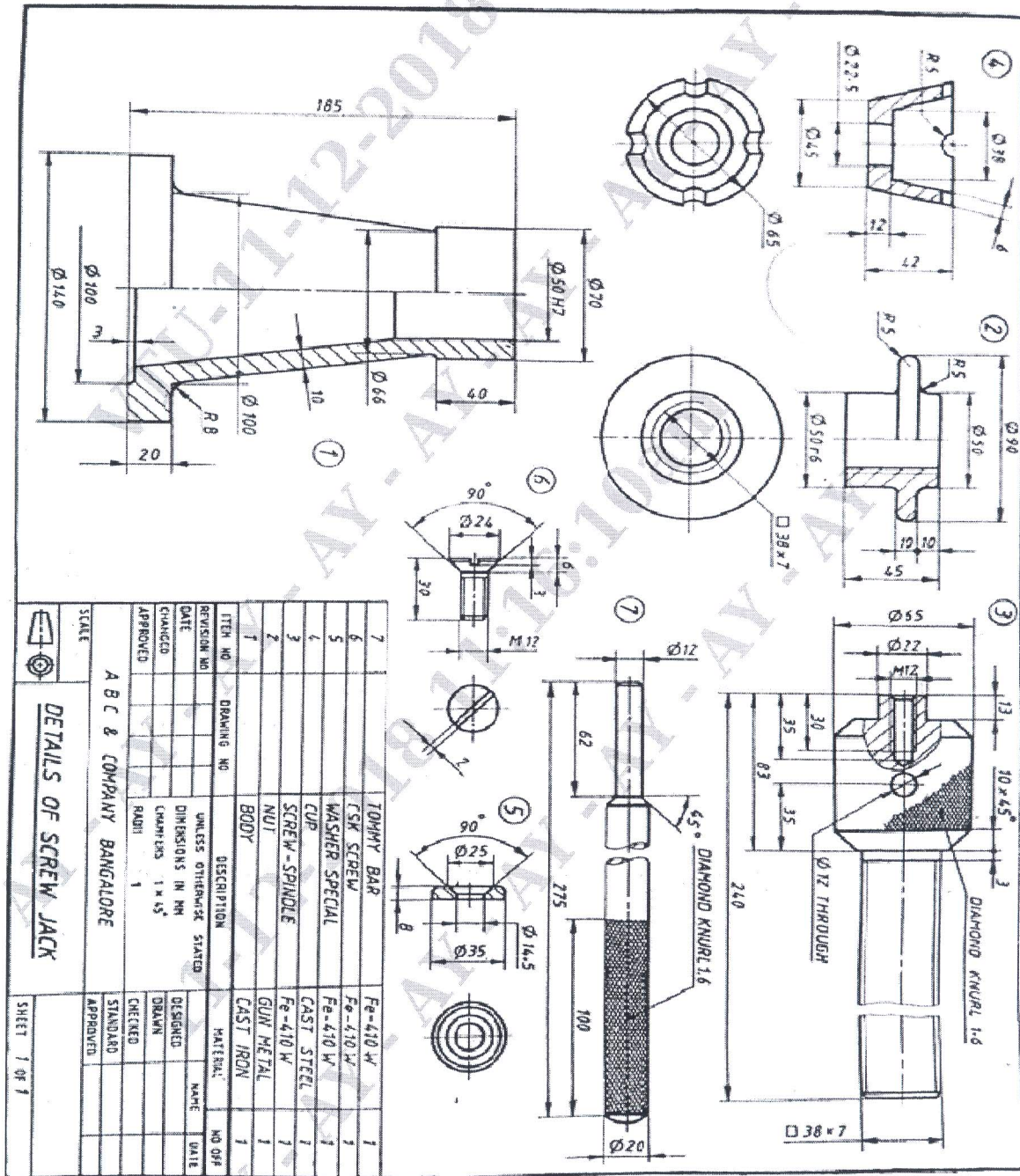


Figure 2: Details of screw jack

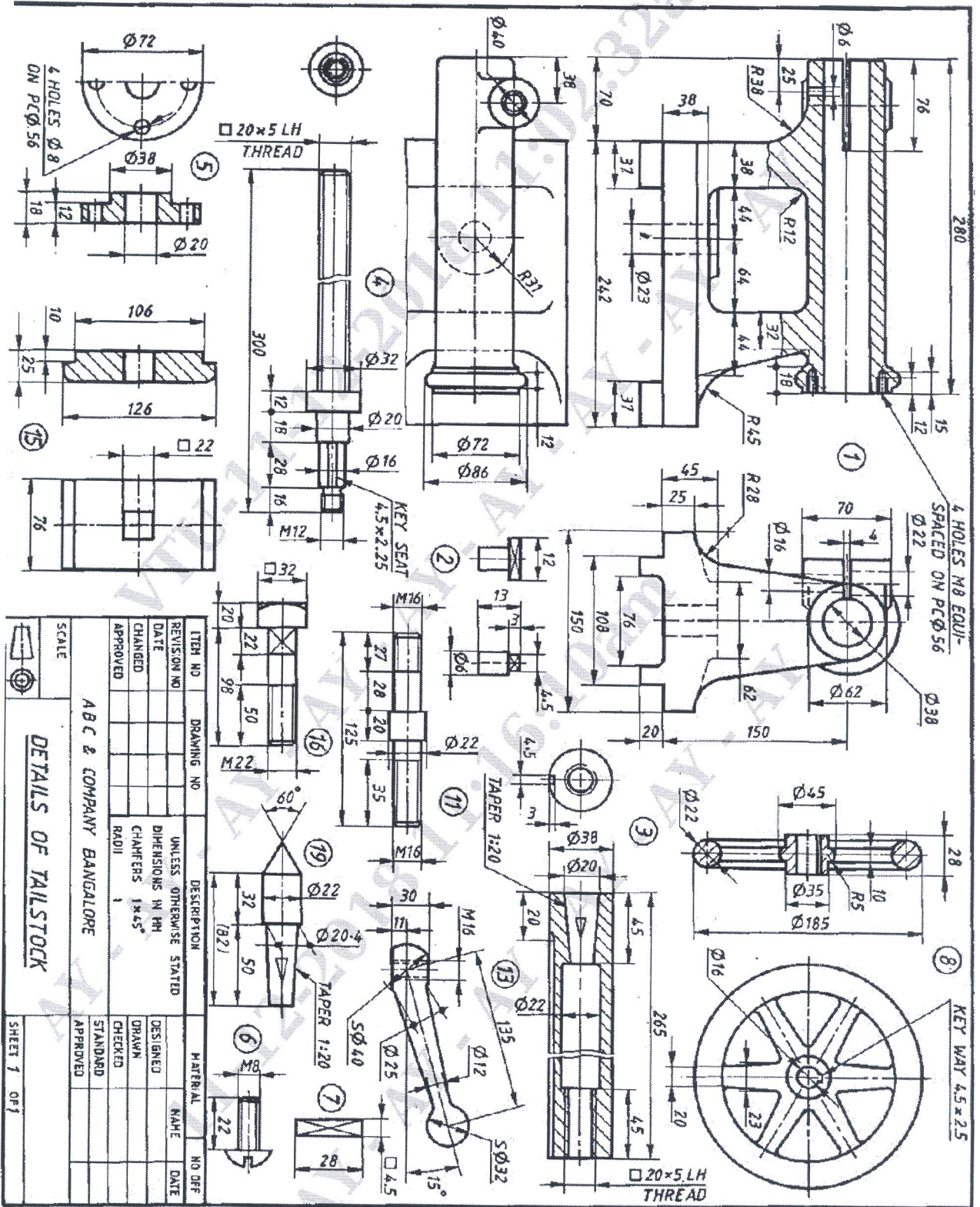


Figure 3: Details of tail-stock

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Third Semester B.E. Degree Examination, December 2018 (ME/MA)

COMPUTER AIDED MACHINE DRAWING

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Max. Marks: 100

- Note:**
1. Answer any ONE question from each of the parts A, B and C.
 2. Use **FIRST ANGLE** projection only.
 3. If any data is missing it may be suitably assumed and mentioned.
 4. All the calculations should be on answer sheet supplied.
 5. All the dimensions are in mm.
 6. Drawing instruments may or may not be used for sketching.
 7. **Part C Assembled View should be in 3D and other 2 views in 2D.**

PART - A

- Q.No.1** Using First Angle Projection, Draw the Orthographic Views of the object shown in fig. 1 below. **(25 Marks)**

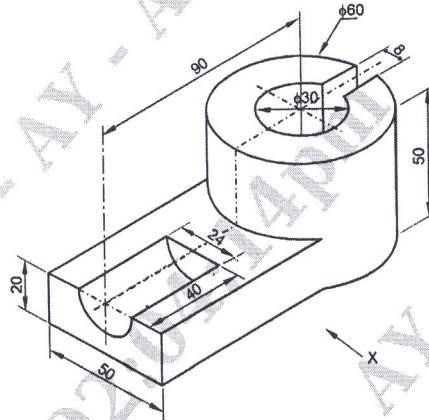


Fig. 1

- Q.No.2** Draw the profile of i) ISO screw thread ii) ACME thread of pitch 40mm. Indicate all the proportions and dimensions. **(25 Marks)**

PART - B

- Q.No.3** Draw the sectional front view and side view of a socket and spigot cotter joint to connect two rods of diameter 25mm each. **(25 Marks)**
- Q.No.4** Draw sectional front view and side view of a Oldham's coupling by taking the shaft diameter 20mm, indicate all dimensions. **(25 Marks)**

PART - C

- Q.No.5** Figure 2 shows the details of a "LATHE SQUARE TOOL POST". Assemble the parts and show the following views.
(a) Half sectional front view showing the right half in section (b) Top view . **(50 Marks)**

Q.No.6 Figure 3 shows the part drawing of a "TAIL-STOCK". Assemble the Parts and show the following views.

- a. Sectional front view b. Top view (50 Marks)

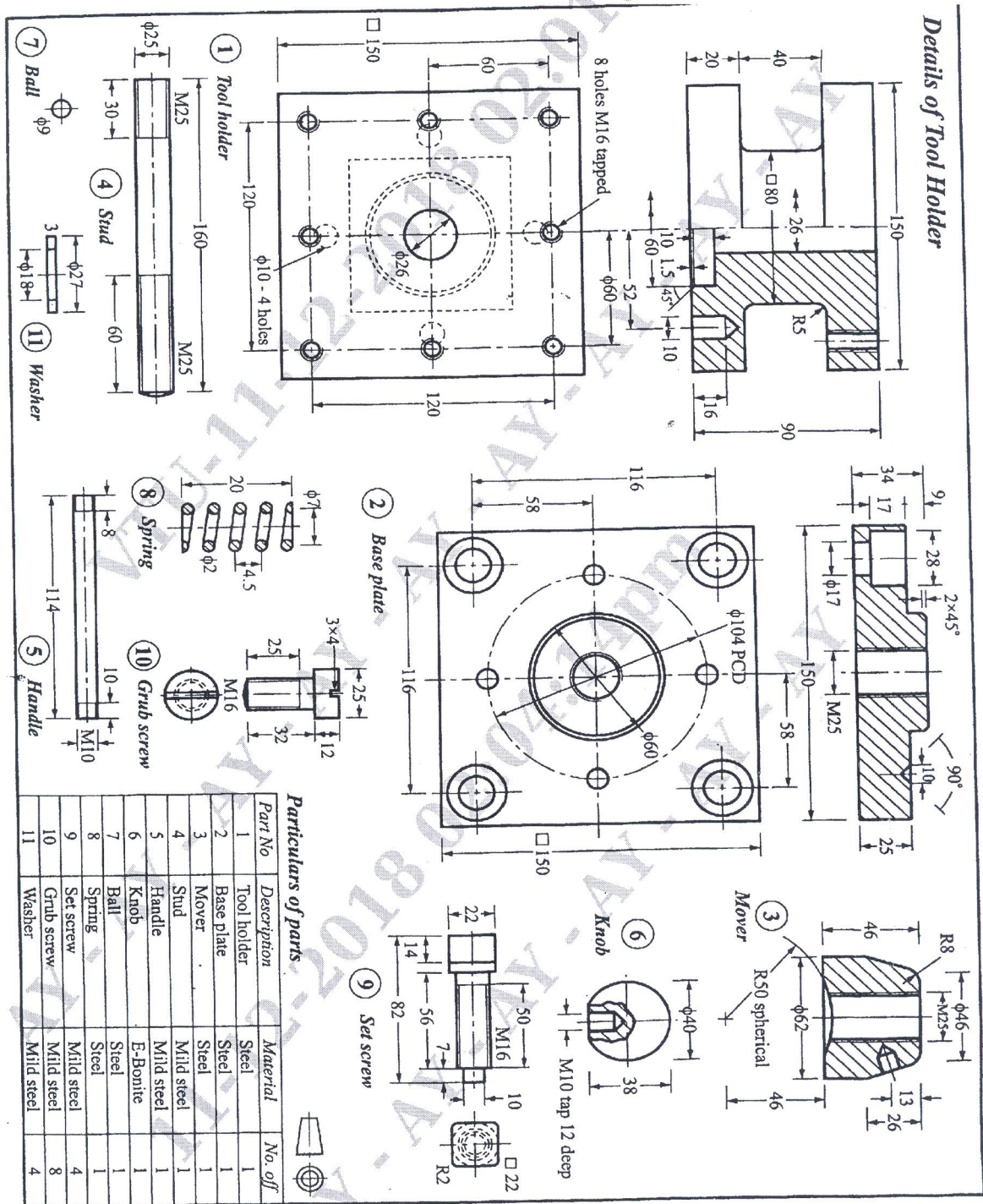


Figure 2 : Details of a "lathe square tool post"

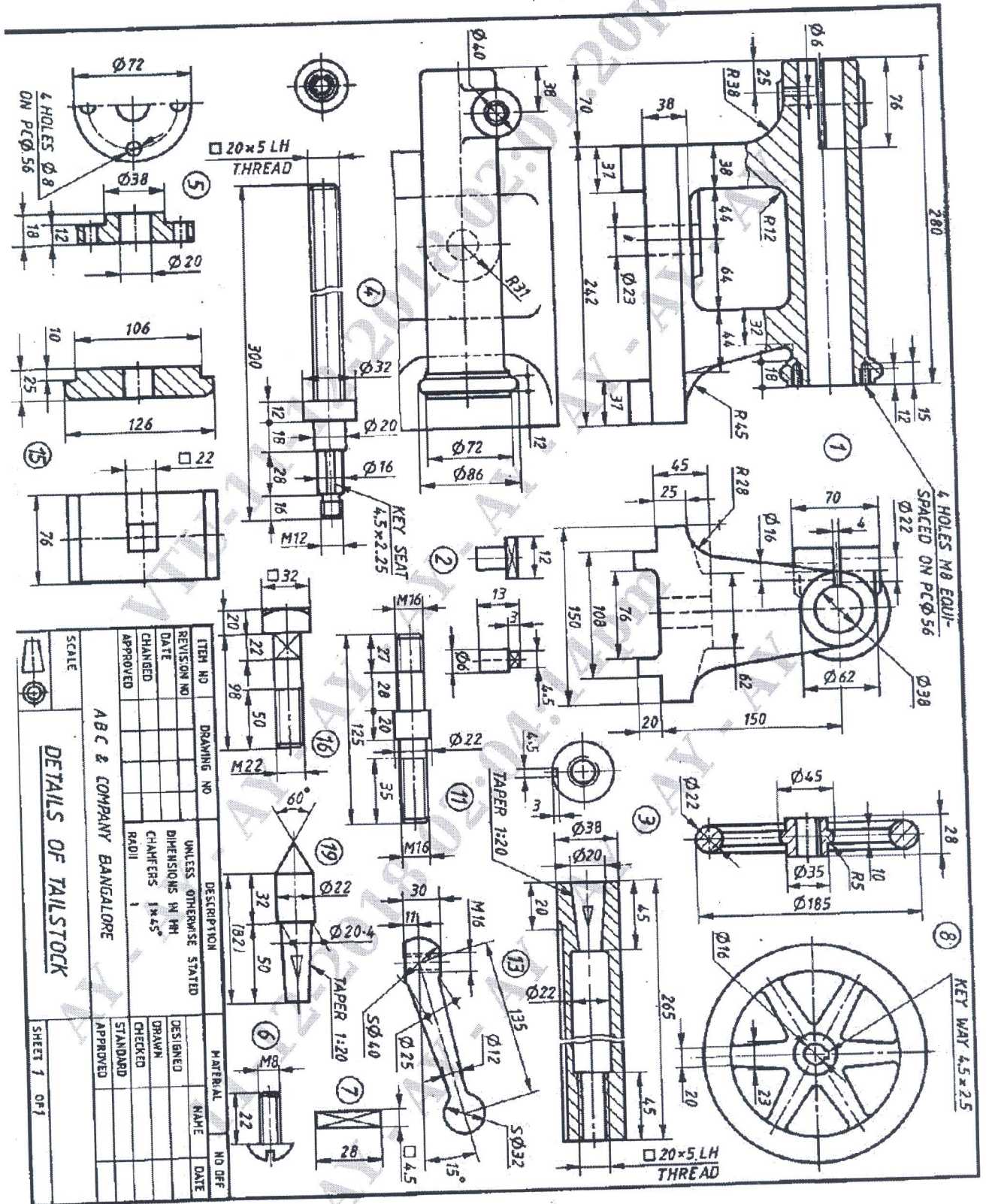


Figure 3 : details of a "tail-stock"

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**Third Semester B.E. Degree Examination, December 2018
(ME/MA)**

COMPUTER AIDED MACHINE DRAWING

Time: 3 Hours

Max. Marks: 100

- Note:** 1. Answer any ONE question from each of the parts A, B and C.
2. Use **FIRST ANGLE** projection only.
3. If any data is missing it may be suitably assumed and mentioned.
4. All the calculations should be on answer sheet supplied.
5. All the dimensions are in mm.
6. Drawing instruments may or may not be used for sketching.
7. **Part C Assembled View should be in 3D and other 2 views in 2D.**

PART – A

- Q.No.1** An equilateral triangular pyramid of base side, 40mm and height 70mm rests on one of its base on HP such that one of its slant edge parallel to VP. A section plane perpendicular to VP and inclined at 63° to HP cuts the pyramid by passing through one of its lateral faces at a height of 9mm above HP. Draw the front view, sectional side view along with the cut solids. **(25 Marks)**
- Q.No.2** Draw two views of a Square headed bolt and nut for a 30mm diameter bolt. Take the length of the bolt equal to 100mm. **(25 Marks)**

PART - B

- Q.No.3** Draw to 1:1 scale, the top and front views of a double-riveted lap joint Zigzag riveting.. The thickness of the plated is 10mm.show at least three rivets. Indicate all the dimensions. Use snap head rivets. **(25 Marks)**
- Q.No.4** Draw sectional front view and side view of a split Muff coupling to connect two rods of diameter 20mm.indicate all dimensions.. **(25 Marks)**

PART - C

- Q.No.5** Figure 1 shows the details of a “SCREW JACK”. Assemble the Parts and show the following views.
a. Sectional front view showing the right half in section.
b. Top view **(50 Marks)**
- Q.No.6** Figure 2 shows the part drawing of a “RAMS BOTTOM SAETY VALVE”. Assemble parts and show the following views.
a. Sectional front view
b. Top view **(50 Marks)**

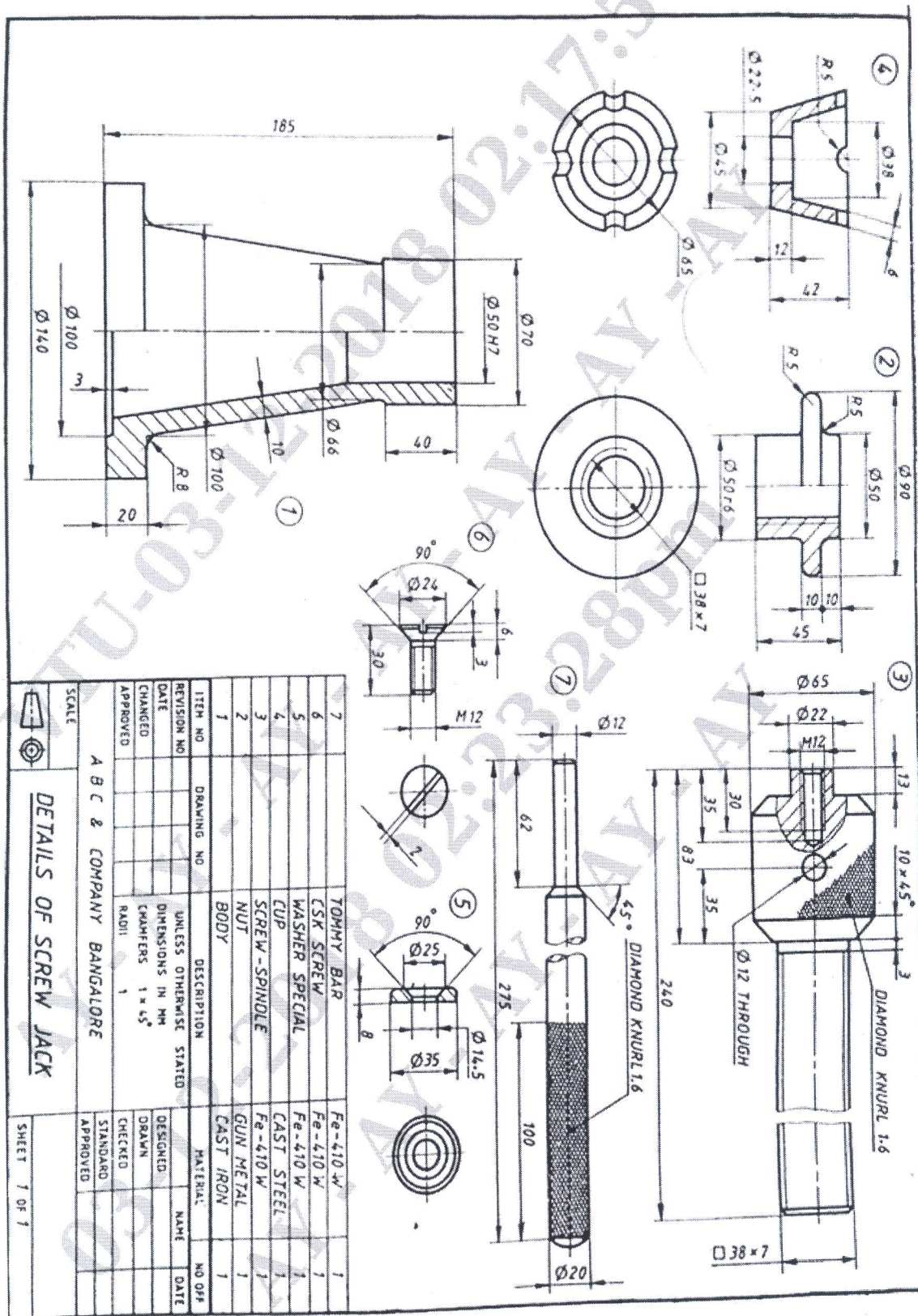


Figure 2

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Third Semester B.E. Degree Examination, December 2018 (ME/MA)

COMPUTER AIDED MACHINE DRAWING

Time: 3 Hours

Max. Marks: 100

- Note:**
1. Answer any ONE question from each of the parts A, B and C.
 2. Use **FIRST ANGLE** projection only.
 3. If any data is missing it may be suitably assumed and mentioned.
 4. All the calculations should be on answer sheet supplied.
 5. All the dimensions are in mm.
 6. Drawing instruments may or may not be used for sketching.
 7. **Part C Assembled View should be in 3D and other 2 views in 2D.**

PART - A

- Q.No.1** Using First Angle Projection, Draw the Orthographic Views of the object shown in fig. 1 below. **(25 Marks)**

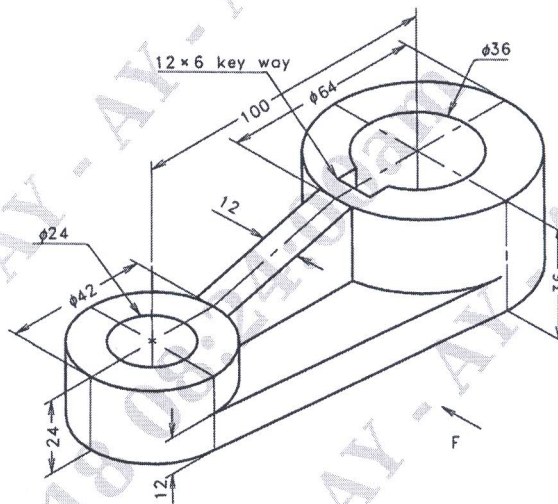


Fig. 1

- Q.No.2** Draw the profile of i) Buttress thread ii) BSW thread of pitch 40mm. Indicate all the proportions and dimensions. **(25 Marks)**

PART - B

- Q.No.3** Draw the sectional front view and top view of a Knuckle joint to connect two rods of diameter 25mm each. **(25 Marks)**
- Q.No.4** Draw sectional front view and side view of a Universal coupling by taking the shaft diameter 20mm, indicate all dimensions. **(25 Marks)**

PART - C

- Q.No.5** Figure 2 shows the details of a “SCREW JACK”. Assemble the parts and show the following views.
 (a) Half sectional front view showing the right half in section. (b) Top view. **(50 Marks)**
- Q.No.6** Figure 3 shows the part drawing of a “I.C. ENGINE CONNECTING ROD”. Assemble the Parts and show the following views.
 (a) Sectional front view (b) Top view **(50 Marks)**

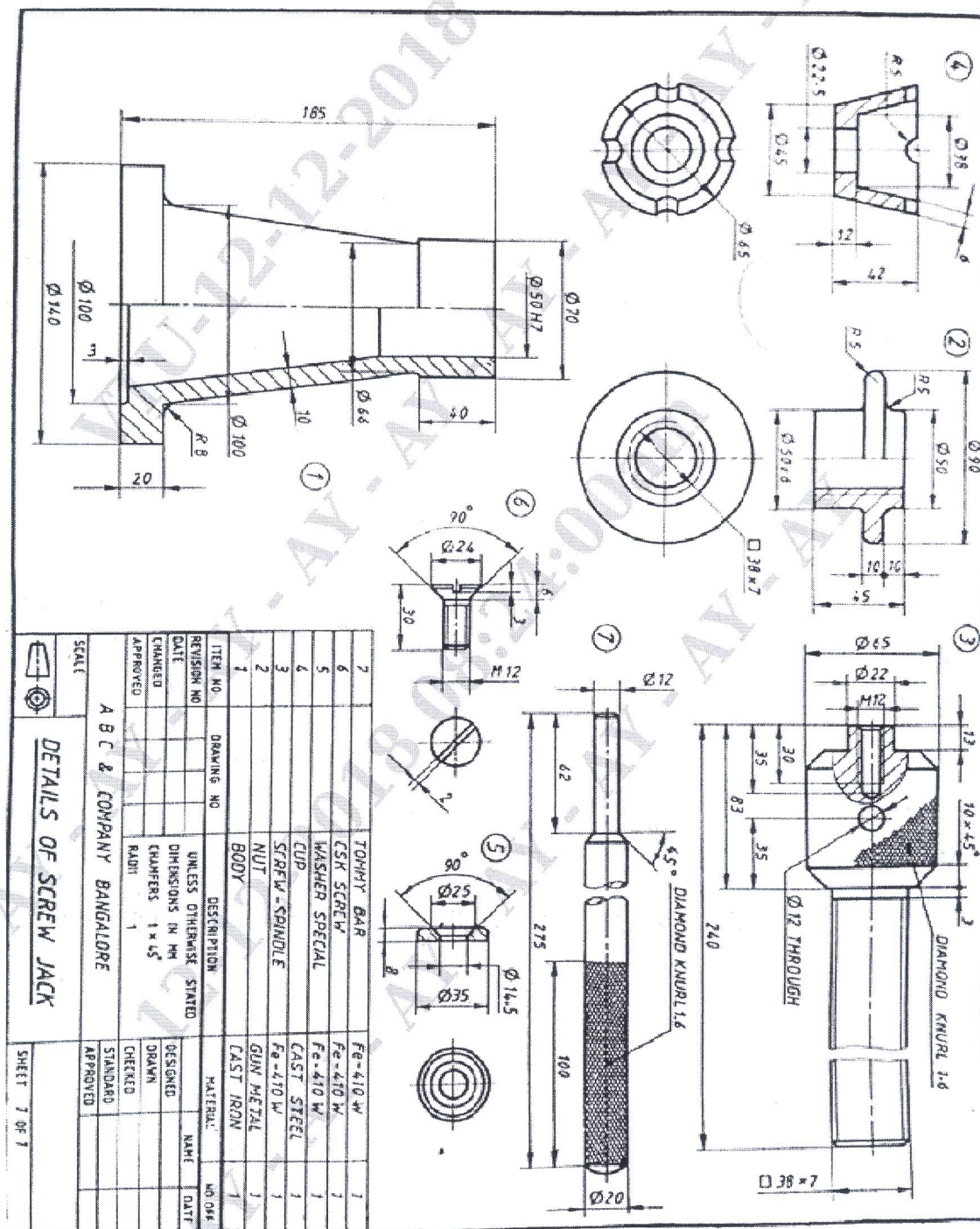


Figure 2 : Details of a Screw Jack

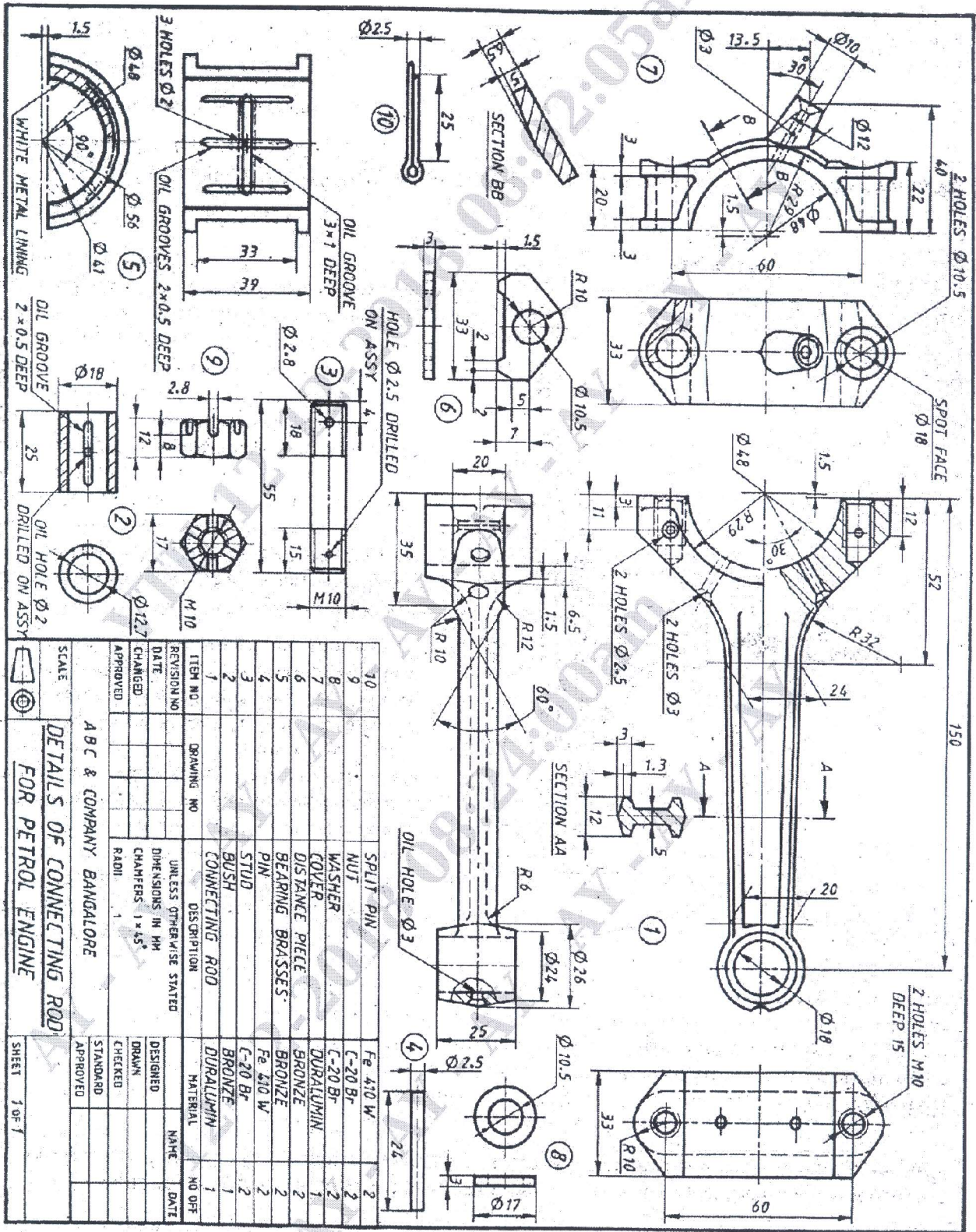


Figure 3 : I.C. Engine Connecting Rod

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**Third Semester B.E. Degree Examination, December 2018
(ME/MA)**

COMPUTER AIDED MACHINE DRAWING

Time: 3 Hours

Max. Marks: 100

- Note:** 1. Answer any ONE question from each of the parts A, B and C.
2. Use **FIRST ANGLE** projection only.
3. If any data is missing it may be suitably assumed and mentioned.
4. All the calculations should be on answer sheet supplied.
5. All the dimensions are in mm.
6. Drawing instruments may or may not be used for sketching.
7. **Part C Assembled View should be in 3D and other 2 views in 2D.**

PART - A

- Q.No.1** A square pyramid side of base 40mm and altitude 60mm has its base on HP with an edge of base inclined at 30° to VP, passing through one of the extreme base corner and $3/4^{\text{th}}$ distance from the apex of the pyramid. Draw the sectional top view and true shape of section. **(25 Marks)**
- Q.No.2** Draw two views of a hexagonal headed bolt and nut with washer (assembly) for a 25mm diameter bolt. Take the length of the bolt equal to 100mm. **(25 Marks)**

PART - B

- Q.No.3** Draw the following view of a SOCKET and SPIGOT COTTER JOINT used to joining two rods of diameter 30mm (a) Sectional front view (b) A view looking from socket end.. **(25 Marks)**
- Q.No.4** Draw sectional front view and side view of a protected type flange coupling, take diameter of shaft 30mm, indicate all dimensions. **(25 Marks)**

PART - C

- Q.No.5** Figure 1 shows the details of a "PLUMMER BLOCK". Assemble the Parts and show the following views.
a. Half-sectional front view showing the right half in section.
b. Top view **(50 Marks)**
- Q.No.6** Figure 2 shows the part drawing of a "RAMS BOTTOM SAFETY VALVE". Assemble parts and show the following views.
a. Sectional front view
b. Top view **(50 Marks)**

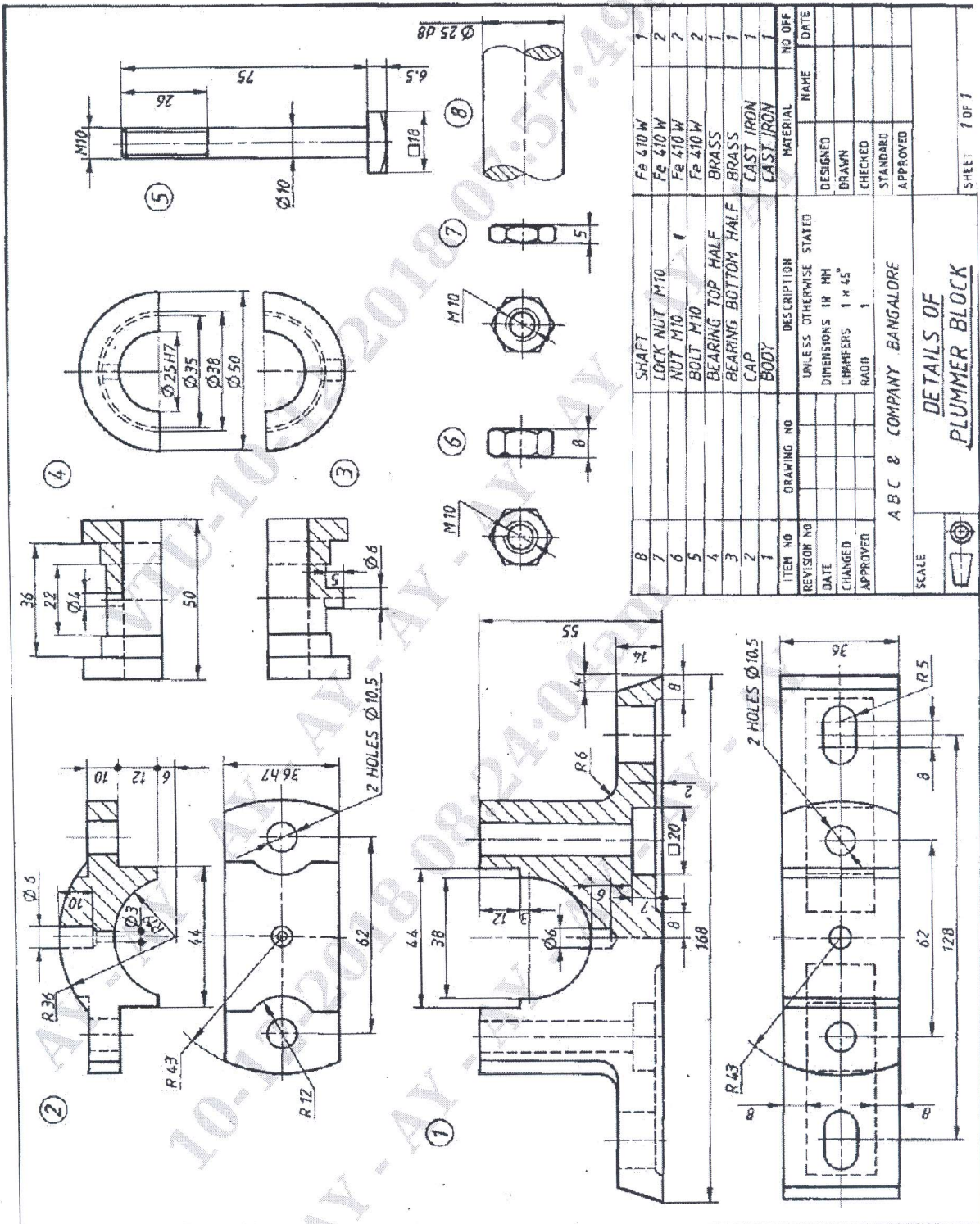


Figure 1: Details of Plummer block

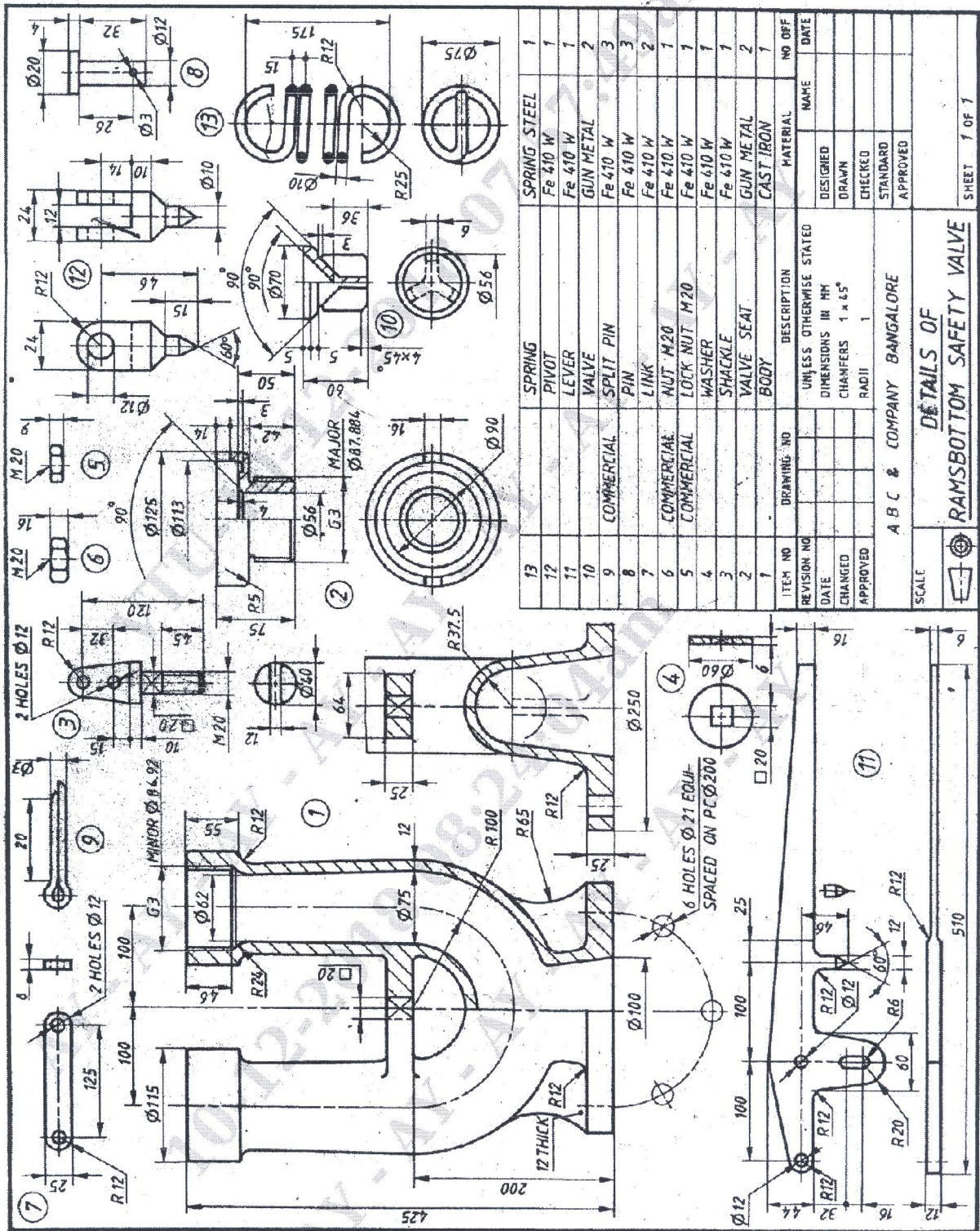


Figure 2: Details of Rams Bottom Safety Valve

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Third Semester B.E. Degree Examination, December 2018 (ME/MA)

COMPUTER AIDED MACHINE DRAWING

Time: 3 Hours

Max. Marks: 100

- Note:**
1. Answer any ONE question from each of the parts A, B and C.
 2. Use **FIRST ANGLE** projection only.
 3. If any data is missing it may be suitably assumed and mentioned.
 4. All the calculations should be on answer sheet supplied.
 5. All the dimensions are in mm.
 6. Drawing instruments may or may not be used for sketching.
 7. **Part C Assembled View should be in 3D and other 2 views in 2D.**

PART - A

- Q.No.1** A square prism, sides of square 40mm and height 80mm rests with its base on HP with a vertical face inclined at 30° to the VP. It is cut a plane at 50° to the VP and perpendicular to the HP and is 15mm from axis nearer to the observer. Both that inclined face and the section plane lean towards the same direction. Draw its top view, sectional front view and true shape of section. **(25 Marks)**
- Q.No.2** Draw two views of a Square headed bolt and nut for a 25mm diameter bolt. Take the length of the bolt equal to 100mm. **(25 Marks)**

PART - B

- Q.No.3** Draw to 1:1 scale, the top and front views of a double riveted Lap joint. The thickness of the plate is 9mm. show at least three rivets. Indicate all the dimensions. Use snap head rivets. **(25 Marks)**
- Q.No.4** Draw sectional front view and side view of a Oldham's coupling, take diameter of shaft 30mm, indicate all dimensions. **(25 Marks)**

PART - C

- Q.No.5** Figure 1 shows the details of a "SQUARE TOOL POST". Assemble the Parts and show the following views.
 (a) Half-sectional front view showing the right half in section.
 (b) Top view **(50 Marks)**
- Q.No.6** Figure 2 shows the part drawing of a "I.C. ENGINE CONNECTING ROD". Assemble parts and show the following views.
 (a) Sectional front view
 (b) Top view **(50 Marks)**

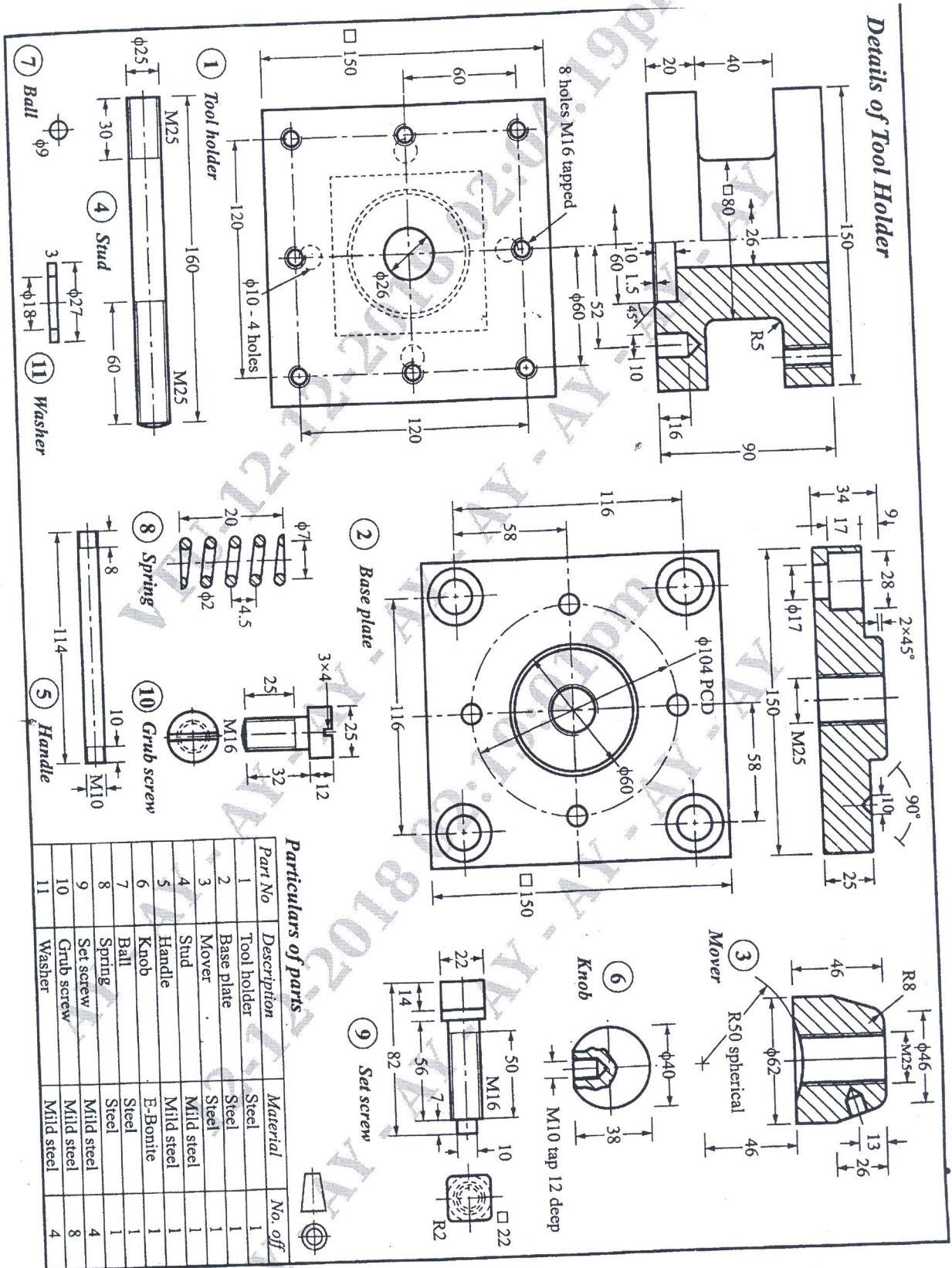


Figure 1 : SQUARE TOOL POST

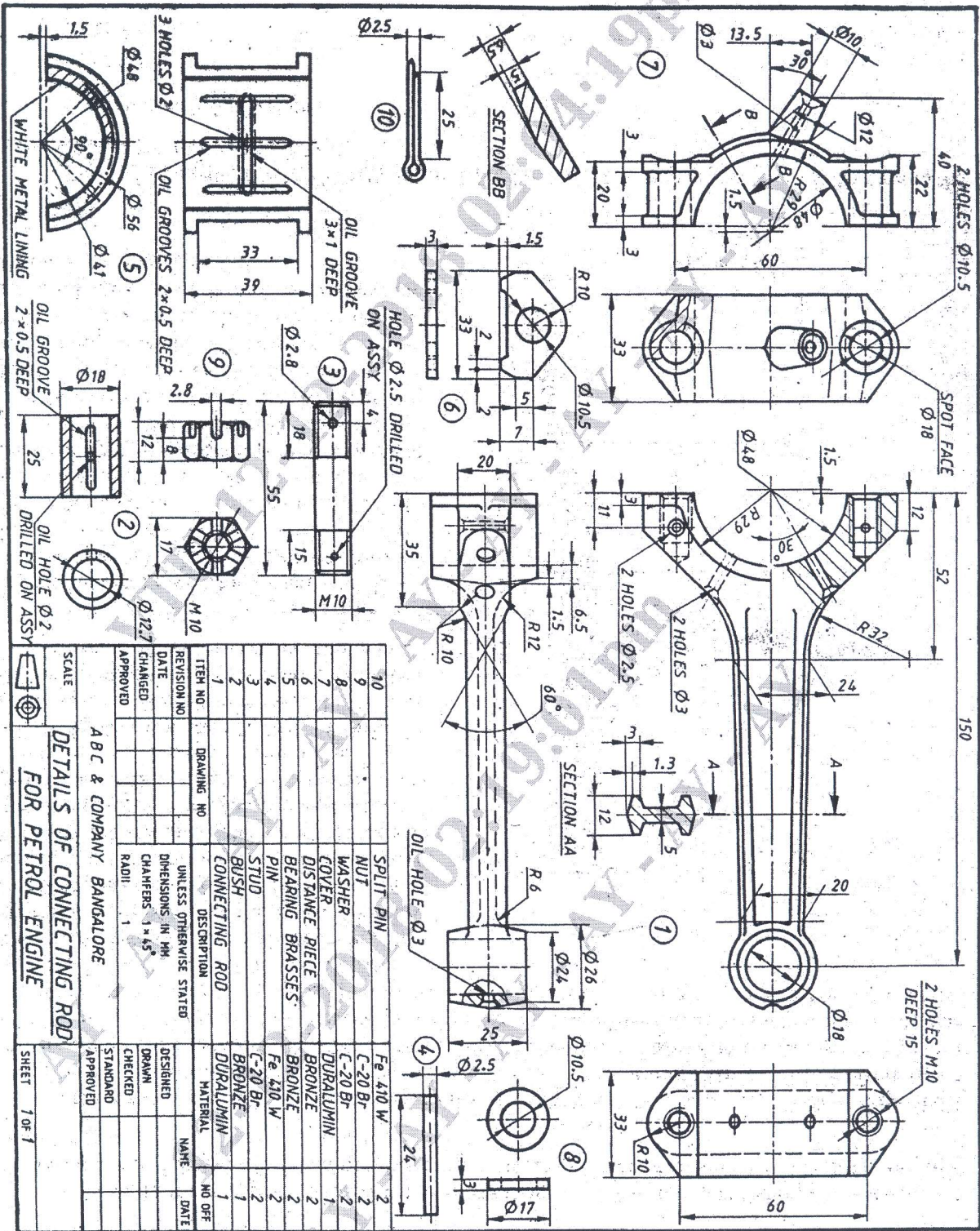


Figure 2 : I.C. Engine Connecting Rod

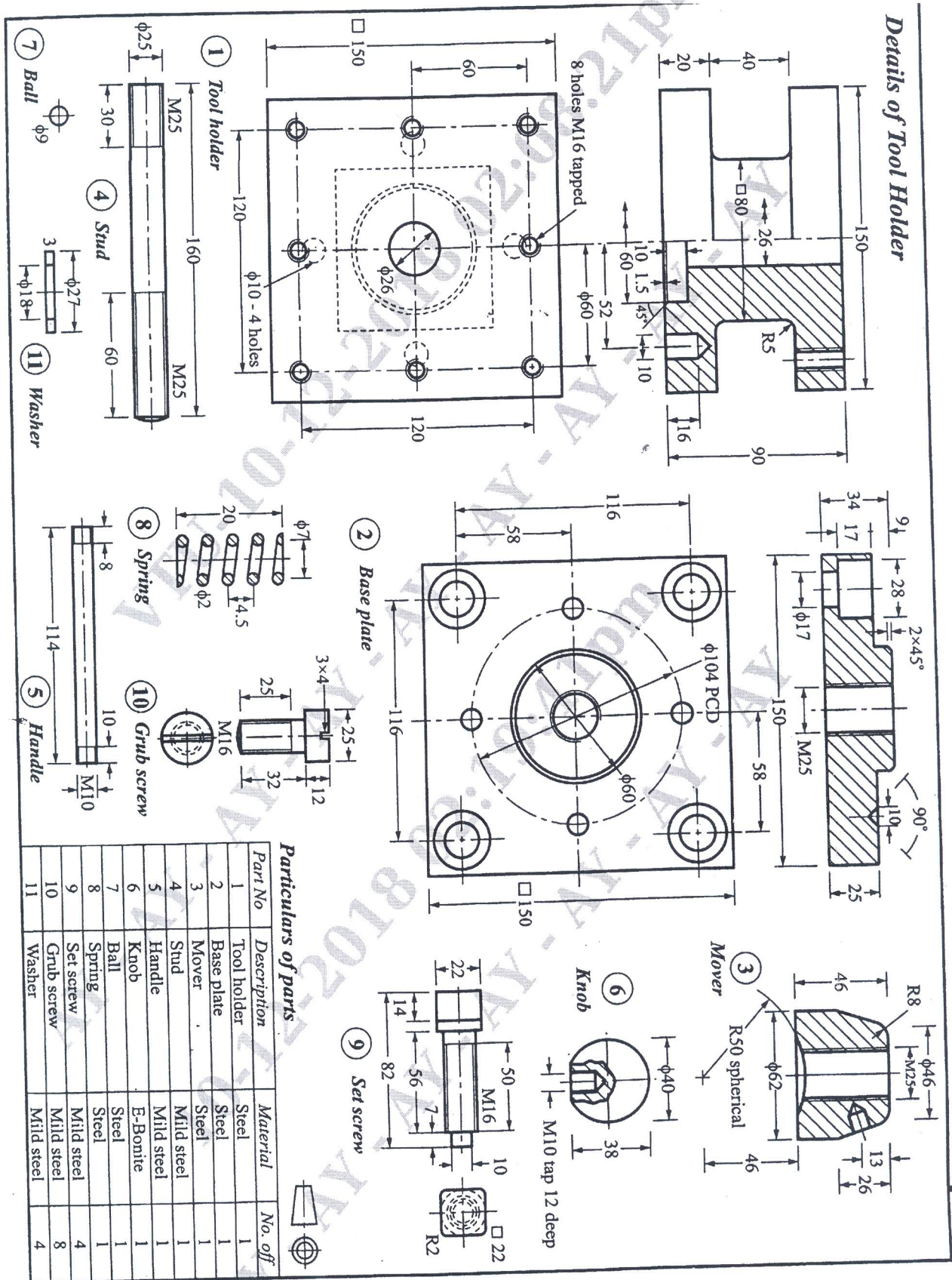


Figure 2: Details of LATHE SQUARE TOOL POST

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Third Semester B.E. Degree Examination, December 2018 (ME/MA)

COMPUTER AIDED MACHINE DRAWING

Time: 3 Hours

Max. Marks: 100

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 4. All the calculations should be on answer sheet supplied.
 5. All the dimensions are in mm.
 6. Drawing instruments may or may not be used for sketching.
 7. **Part C Assembled View should be in 3D and other 2 views in 2D.**

PART - A

- Q.No.1** Using First Angle Projection, Draw the Orthographic Views of the object shown in fig. 1 below. **(25 Marks)**

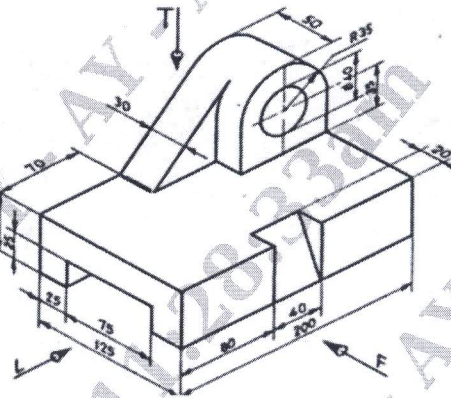


Fig. 1

- Q.No.2** Draw the following profiles of pitch 50mm. **(25 Marks)**
- i. Square thread
 - ii. ISO thread.

PART - B

- Q.No.3** Draw the sectional front view and top view of double riveted lap joint with zig-zag riveting. The thickness of the plate is 9mm. show at least three rivets in each row. Indicate all the dimensions. Use snap head rivets. **(25 Marks)**
- Q.No.4** Draw sectional front view and side view of a split Muff coupling to connect two rods of diameter 20mm, indicate all dimensions. **(25 Marks)**

PART - C

- Q.No.5** Figure 2 shows the details of a "SCREW JACK". Assemble the parts and show the following views.
 a. Half sectional front view showing the right half in section.
 b. Top view

(50 Marks)

- Q.No.6** Figure 3 shows the part drawing of a "TAIL-STOCK". Assemble the Parts and show the following views.
 a. Sectional front view
 b. Top view

(50 Marks)

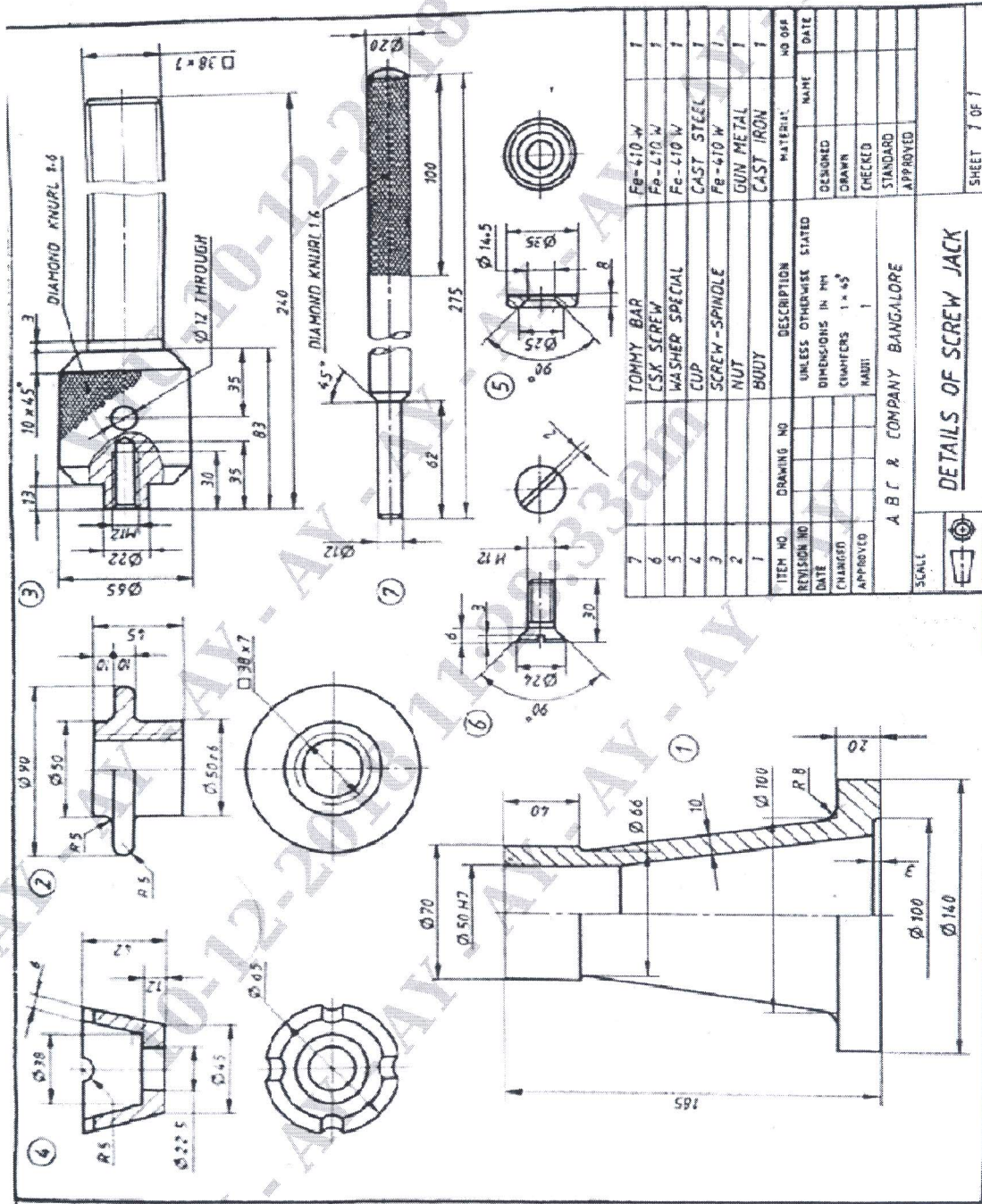


Figure 2: Details of Screw jack

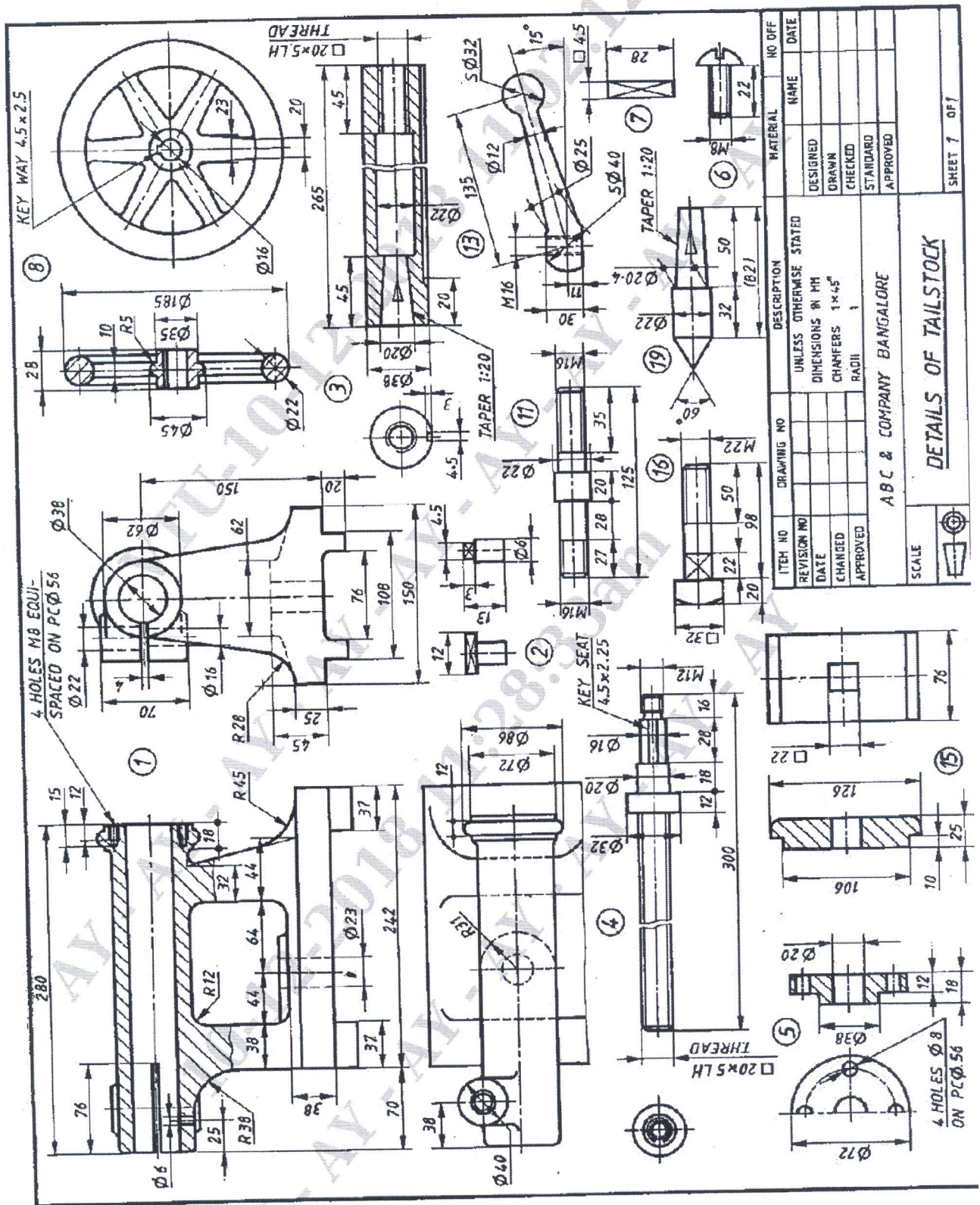


Figure 3: Details of tailstock

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**Third Semester B.E. Degree Examination, December 2018
(ME/MA)**

COMPUTER AIDED MACHINE DRAWING

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Max. Marks: 100

- Note:** 1. Answer any ONE question from each of the parts A, B and C.
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 4. All the calculations should be on answer sheet supplied.
 5. All the dimensions are in mm.
 6. Drawing instruments may or may not be used for sketching.
 7. **Part C Assembled View should be in 3D and other 2 views in 2D.**

PART - A

- Q.No.1** A square pyramid side of base 35mm and axis length 60mm has its base on HP with an edge of base inclined at 30° to VP, it is cut by a cutting plane perpendicular to both HP and VP and is 10mm away from axis. Draw the sectional top view and true shape of section. **(25 Marks)**
- Q.No.2** Draw two views of a Square headed bolt and nut with washer (assembly) for a 25mm diameter bolt. Take the length of the bolt equal to 100mm. **(25 Marks)**

PART - B

- Q.No.3** Draw to 1:1 scale, the top and front views of a single riveted Butt joint. The thickness of the plate is 9mm, show at least three rivets. Indicate all the dimensions. Use snap head rivets. **(25 Marks)**
- Q.No.4** Draw sectional front view and side view of a protected type flange coupling, take diameter of shaft 30mm, indicate all dimensions. **(25 Marks)**

PART - C

- Q.No.5** Figure 1 shows the details of a "MACHINE VICE". Assemble the Parts and show the following views.
 (a) Half-sectional front view showing the right half in section (b) Top view. **(50 Marks)**
- Q.No.6** Figure 2 shows the part drawing of a "PLUMMER BLOCK". Assemble parts and show the following views.
 (a) Sectional front view (b) Top view **(50 Marks)**

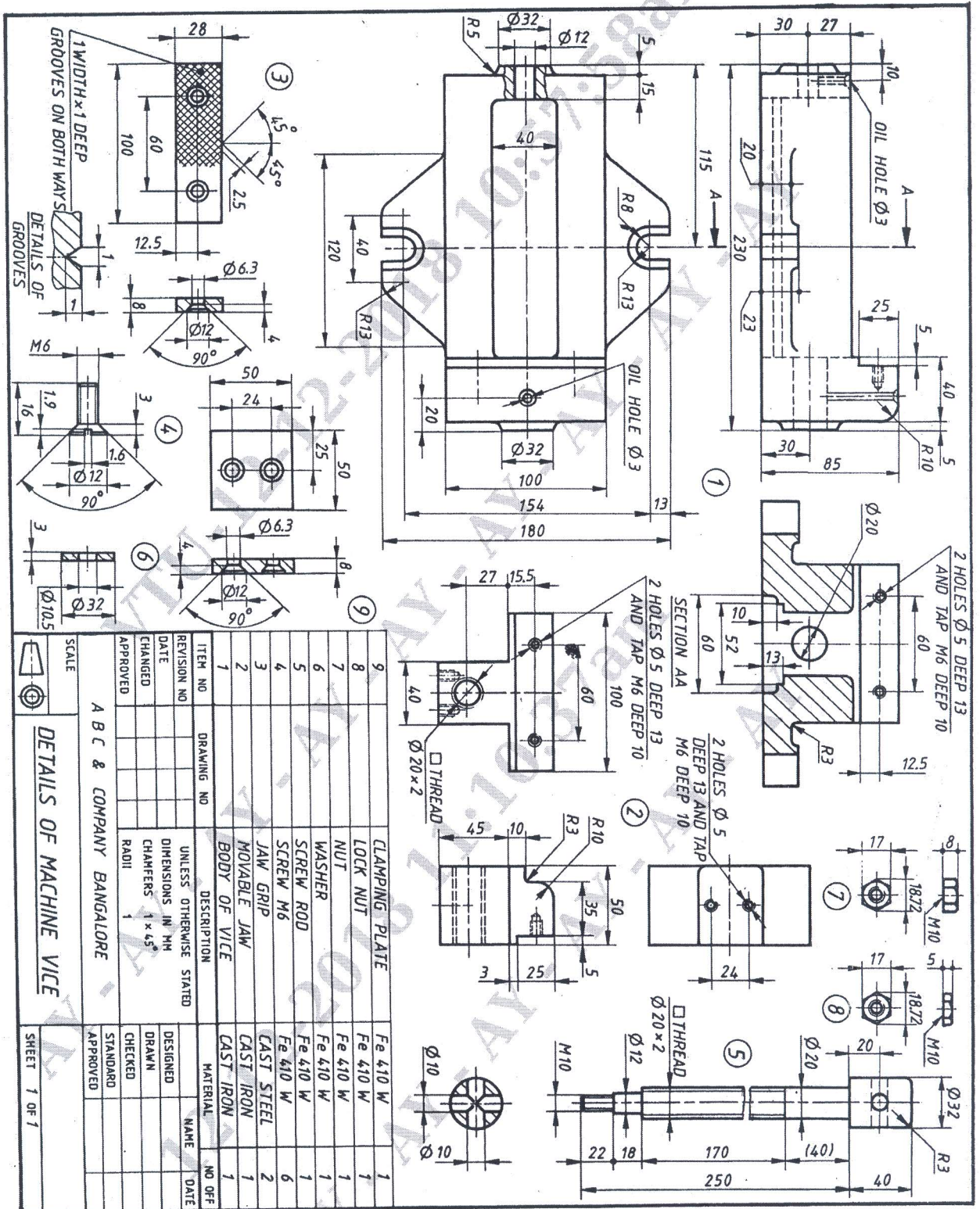


Figure 1: Details of a "Machine Vice"

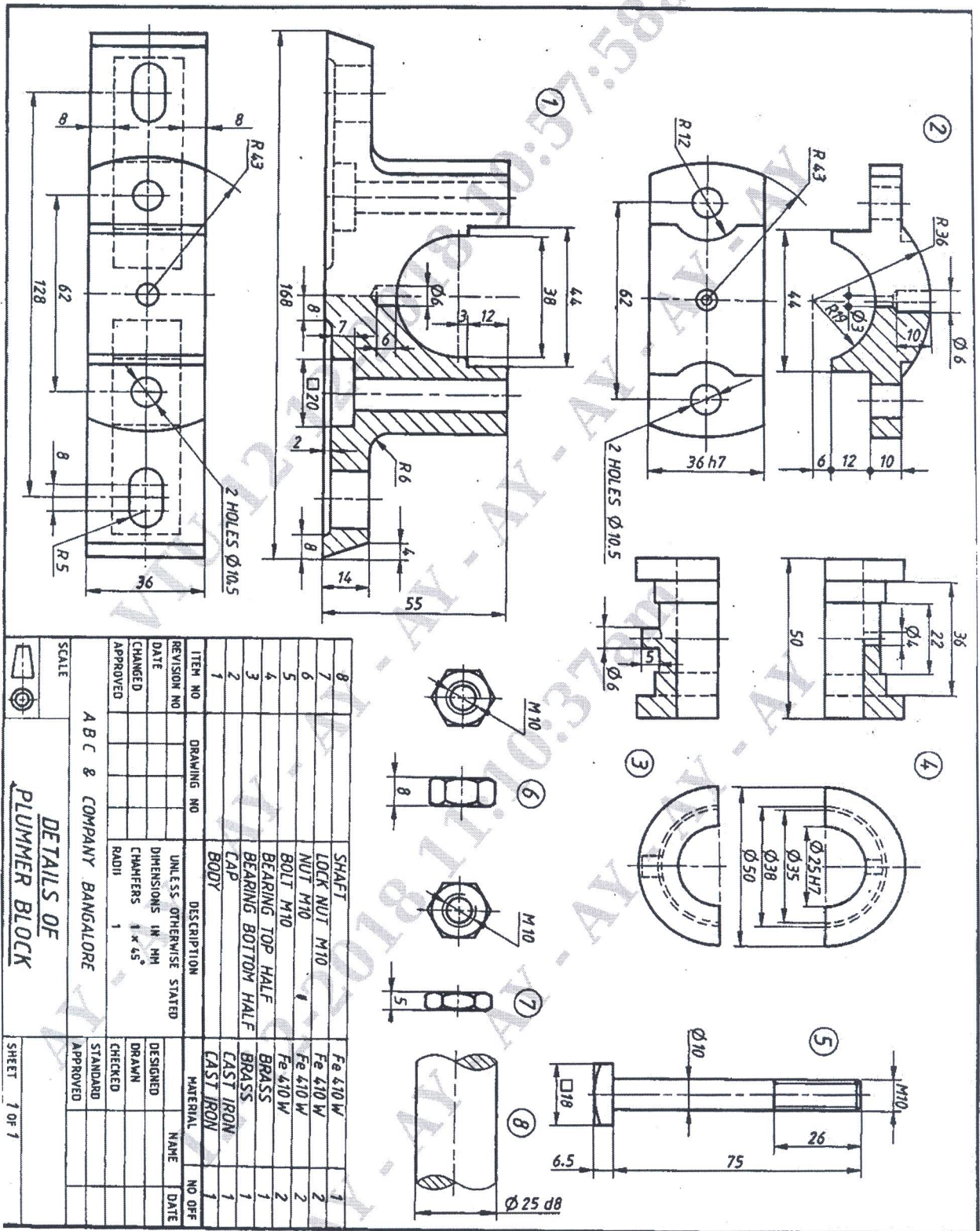


Figure 2 : Drawing of A "Plummer Block"