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## Third Semester B.E. Degree Examination, December 2018 (MINING ENGINEERING)

### 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. Missing data if any may suitably be assumed.
  4. All the calculations should be on answer sheet supplied.
  5. All the dimensions are in mm.
  6. **Part C Assembled View should be in 3D and other 2 views in 2D.**

#### PART - A

- Q.No.1** A right regular hexagonal pyramid with edge of base 30mm and height 100mm stands with its base on HP with two of its base edges parallel to VP. It is cut by a plane passing through a point on the axis 50mm from the base and inclined at  $30^\circ$  to be the horizontal plane and perpendicular to the profile plane. Project the sectional view and the true shape of section. **(20 Marks)**
- Q.No.2** Draw the following profiles.
- a) ACME thread of pitch 45mm
  - b) External and internal BSW thread of pitch 50mm.
- (20 Marks)**

#### PART - B

- Q.No.3** Draw the proportionate sketch of locking of Flanged Nut for a 20mm diameter bolt using Split Pin. **(20 Marks)**
- Q.No.4** Sketch protected type Flange Coupling to connect two shafts as per the instruction given below.
- (i) Half Sectional Front View
  - (ii) Right Side View
- Diameter of the shaft: 25mm.  
**(20 Marks)**

#### PART - C

- Q.No.5** Details of 'PLUMMER BLOCK' are shown in following Figure 1. Assemble the parts and draw the following views of the assembly.
- i. Sectional Front View
  - ii. Top View.
- (60 Marks)**
- Q.No.6** Figure 2 shows the details of 'Screw Jack'. Assemble the parts and draw the following views of the assembly.
- i. Half Sectional Front view
  - ii. Top View.
- (60 Marks)**



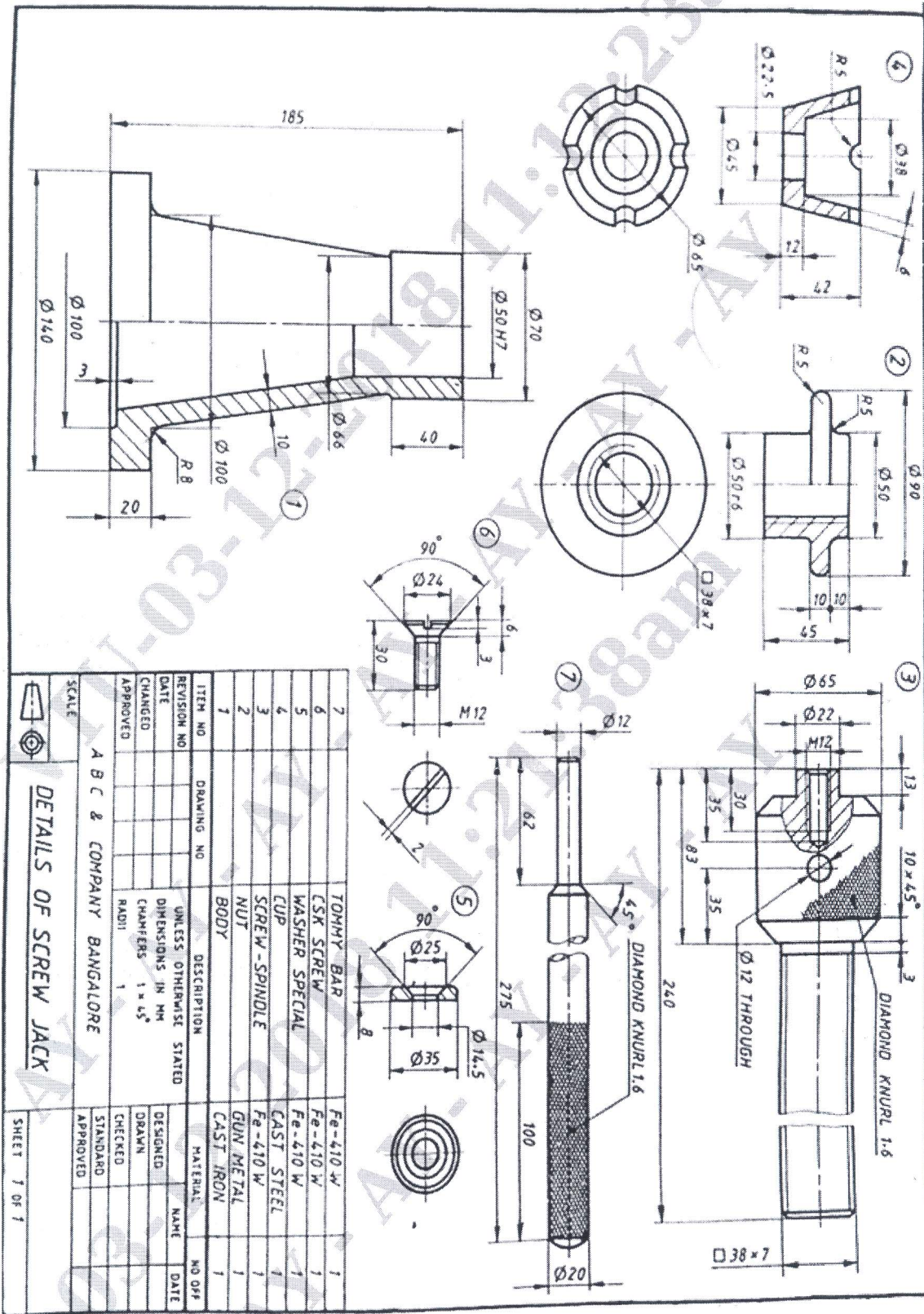


Figure 2

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## Third Semester B.E. Degree Examination, December 2018 (MINING ENGINEERING)

### 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. Missing data if any may suitably be assumed.  
 4. All the calculations should be on answer sheet supplied.  
 5. All the dimensions are in mm.  
 6. **Part C Assembled View should be in 3D and other 2 views in 2D.**

#### PART - A

- Q.No.1** A square pyramid of 60mm edges of base and height 80mm rests on its base on HP with one of its base edges parallel to VP. It is cut by an inclined section plane in such a way that the true shape of section is a trapezium whose parallel sides measure 40mm and 20mm. Draw the FV, sectional top view and the true shape of section. **(20 Marks)**
- Q.No.2** Draw the dimensioned sketches of the following. Indicate the proportions in terms of diameter.  
 (a) Flanged nut,                      (b) Slotted nut. **(20 Marks)**

#### PART - B

- Q.No.3** Draw the sectional Front View and the Top View of a Double Riveted Lap Joint using rivets in Zig Zag arrangements. Thickness of plates = 15 mm. Show all the dimensions on the drawing. **(20 Marks)**
- Q.No.4** Draw the Sectional Front & Top View of an Oldham's Coupling to connect two shafts of diameter 20mm. **(20 Marks)**

#### PART - C

- Q.No.5** Details of 'PLUMMER BLOCK' are shown in following Figure 1. Assemble the parts and draw the following views of the assembly.  
 i. Sectional Front View                      ii. Top View. **(60 Marks)**
- Q.No.6** Figure 2 shows the details of 'Screw Jack'. Assemble the parts and draw the following views of the assembly.  
 i. Half Sectional Front view                      ii. Top view **(60 Marks)**

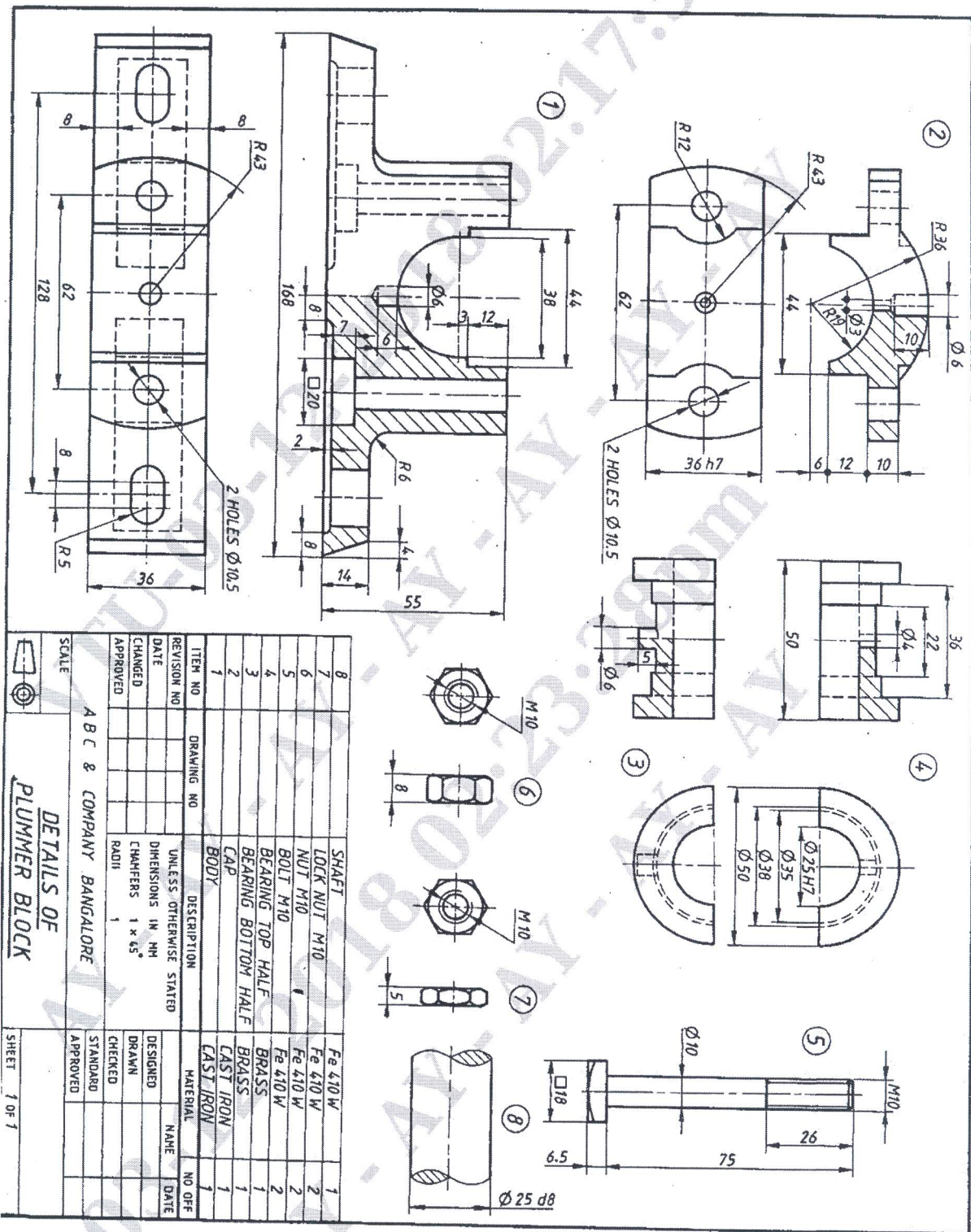


Figure 1

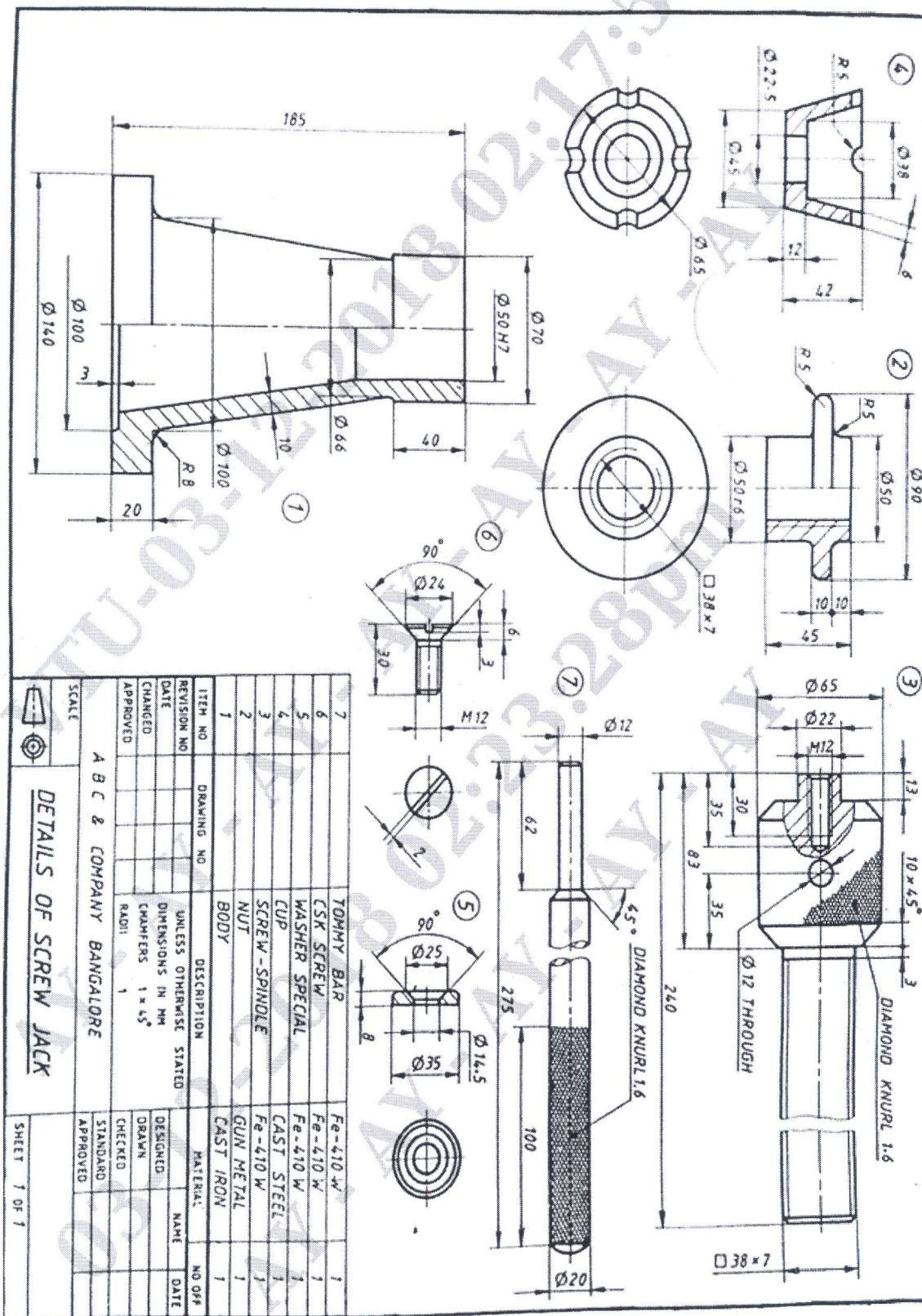


Figure 2