CBCS SCHEME

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15MT64

Sixth Semester B.E. Degree Examination, June/July 2019
(Mechatronics Engineering)
COMPUTER AIDED MACHINE DRAWING

Time: 3 Hours Max. Marks: 80

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

Part - A

1. A hexagonal pyramid side of base 30mm and altitude 70mm is rests with its base on HP and perpendicular to VP. It is cut by a cutting plane inclined at 35^0 to the HP and perpendicular to VP and is bisecting the axis. Draw the front view, the sectional view looking from the top and true shape of section. **(20 Marks)**

2. Draw the following to indicate conventional representation of (a) BSW thread having pitch of 50mm and (b) Acme threads having a pitch of 45mm. Show at least 3 threads in a section. **(20 Marks)**

Part – B

3. Draw the following view of a SOCKET and SPIGOT COTTER JOINT used to joining two rods of diameter 20mm (a) Sectional front view (b) A view looking from socket end. **(20 Marks)**

4. Draw sectional front view and side view of a Protected Type Flange Coupling to connect two rods of diameter 20mm, indicate all dimensions. **(20 Marks)**

Part – C

5. Figure 1 shows the details of a screw jack. Assemble the parts of the screw jack and show the following views.
   a. Half sectional front view showing the right half in section
   b. Top View **(40 Marks)**

6. Figure 2 shows the part drawing of a tail stock. Assemble the tail stock and show the following views.
   a. Sectional front view showing the top spindle portion in section
   b. Left profile view **(40 Marks)**

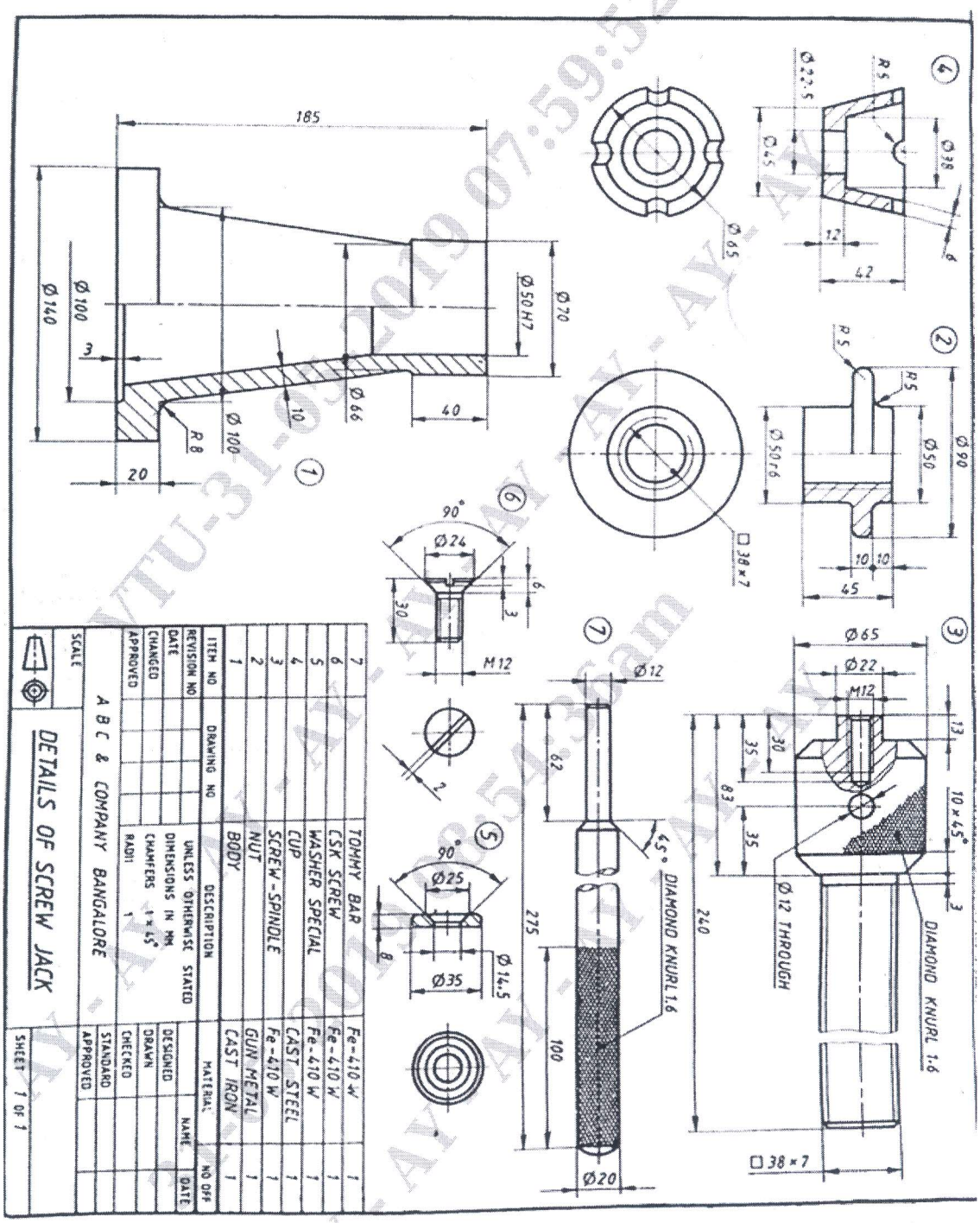

Figure 1: Details of screw jack

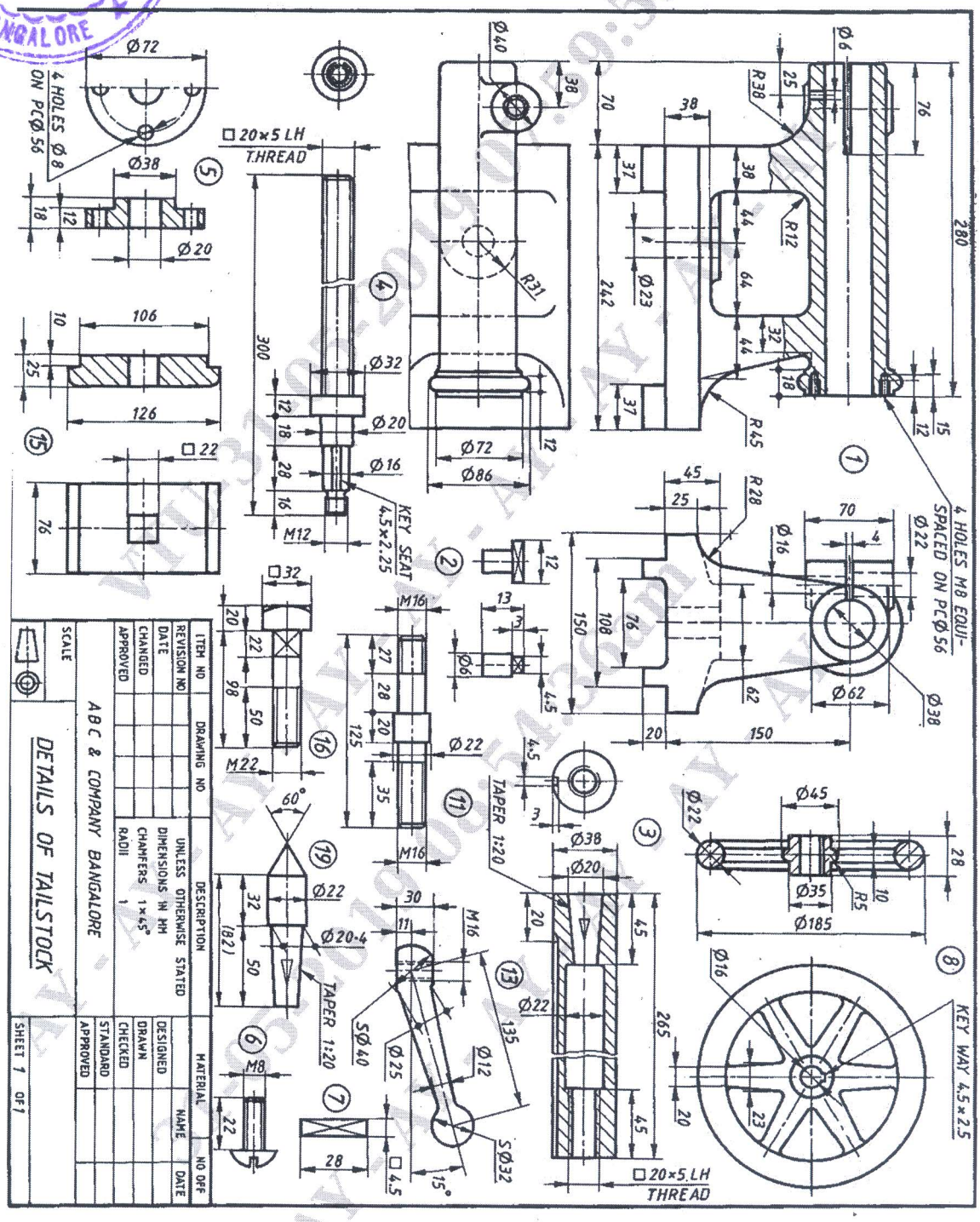

Figure 2: Details of tailstock