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Fourth Semester B.E. Degree Examination, December 2018 (Automobile 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** 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 Pentagonal pyramid of 20mm edge of base and 40mm high stands vertically with its base on HP and an edge of the base perpendicular to VP. A section plane perpendicular to HP and inclined 30° to VP cuts the pyramid such that it passes through the pyramid at a shortest distance of 5mm from its axis and in front of it. Draw its sectional front view and project the true shape of the section. **(15 Marks)**
- Q.No.2** Draw the following views for the given machine component shown in fig. 1.
 a) Front View b) Top view. **(15 Marks)**

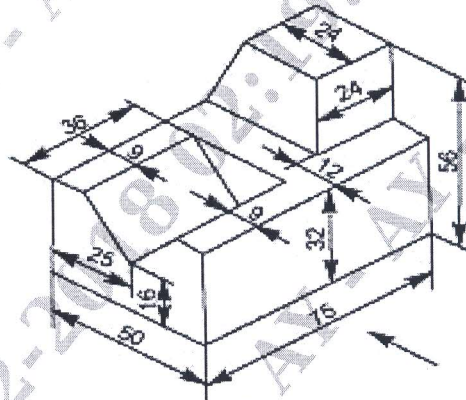


Fig. 1

PART - B

- Q.No.3** Draw sectional front view & Top View of the Double Riveted Lap Joint, with Zig-Zag riveting. Taking $t=9\text{mm}$. Indicate dimensions. (Minimum three rows). **(15 Marks)**
- Q.No.4** Draw the following views of a 'Universal Coupling' used to connect two 20mm diameter shafts. a) Sectional Front view b) Profile view. **(15 Marks)**

PART - C

- Q.No.5** Draw a Half sectional front view and top of a Plummer block assembly (Figure 2). (50 Marks)
- Q.No.6** Details of IC Engine Connecting Rod are shown in the following figure 3. Assemble the parts and draw the following views. (50 Marks)
- a) Sectional Front View b) Side view

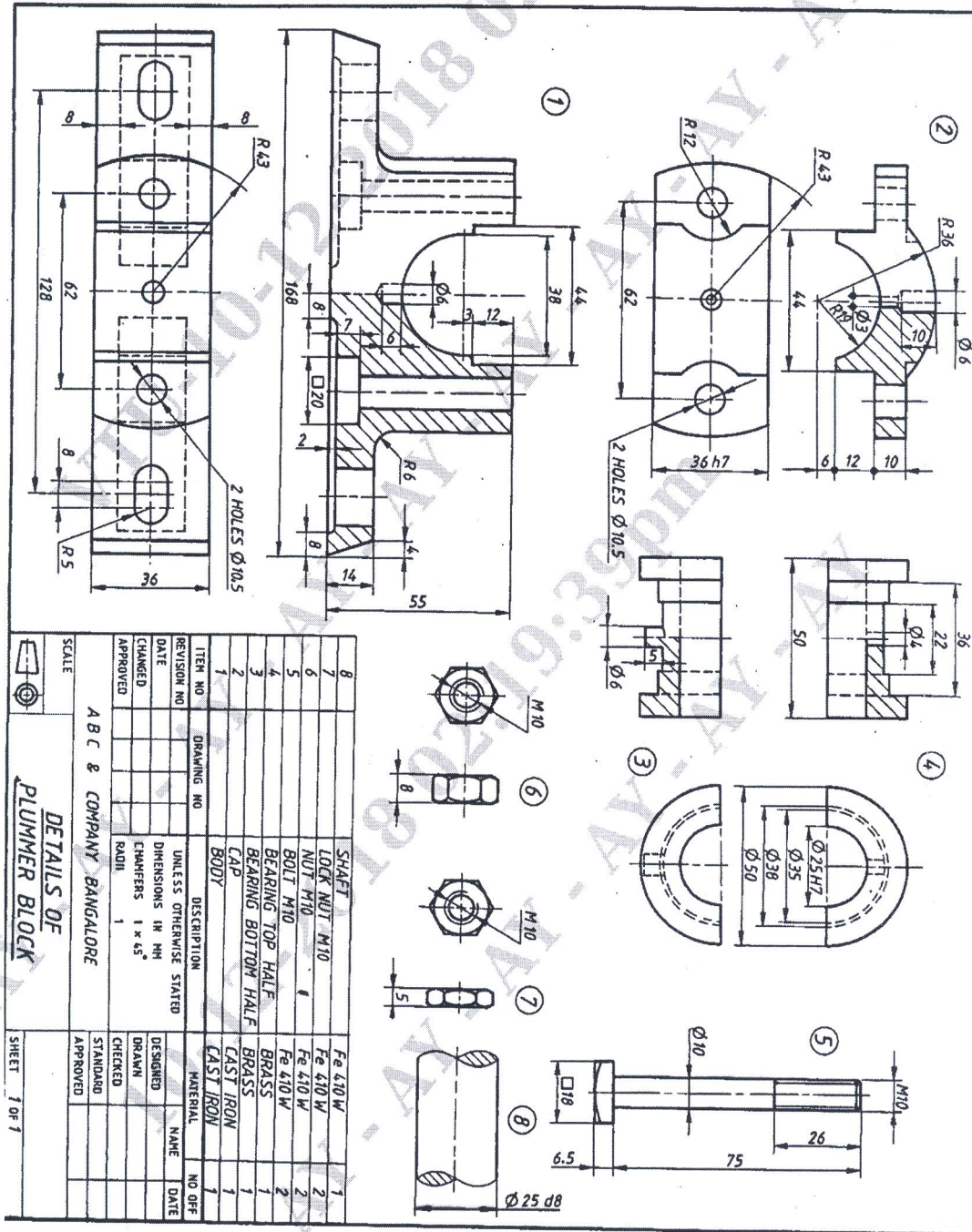


Figure 2 : Details of Plummer Block

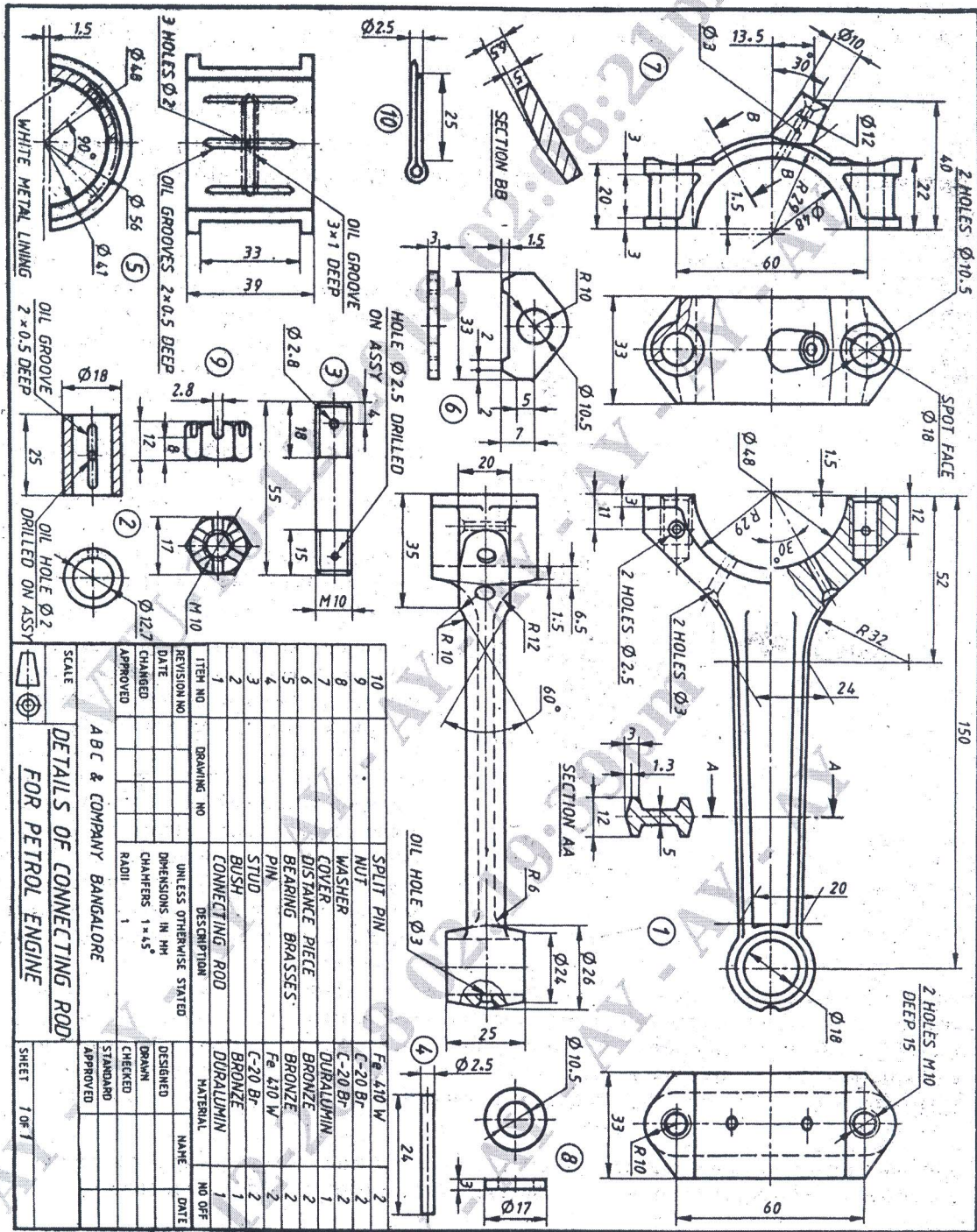


Figure 3 : Details of Connecting Rod