

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

May 2023 Semester End Main Examinations

Programme: B.E.

Branch: Mechanical Engineering

Course Code: 16ME5DCCMD

Course: Computer Aided Machine Drawing

Semester: V

Duration: 3 hrs.

Max Marks: 100

Date: 17.05.2023

- Instructions:**
1. Answer all questions.
 2. Missing data, if any, may suitably be assumed.
 3. Use first angle projection only.
 4. All dimensions are in mm.
 5. Important dimensions are to be shown in the assembly.
 6. A suitable scale, if necessary, may be taken.

UNIT - I

- 1 A pentagonal prism 25 mm sides of base and axis 50 mm is resting on HP on its base with a lateral face inclined to VP at 30° . It is cut by a section plane perpendicular to VP and inclined to HP as 35° and passes through a point on the axis at a distance of 10 mm from the top end of the axis. Draw a sectional view & auxiliary view showing true shape of section. **20**

UNIT - II

- 2 a) Draw the Geometric characteristic symbols for the following: **05**
- (i) Profile of a surface
 - (ii) Angularity
 - (iii) Concentricity
 - (iv) Total Runout
 - (v) Cylindricity
- b) Draw the following Fig.1 and identify feature of size and non feature of size. Mark it on the Drawing. **10**

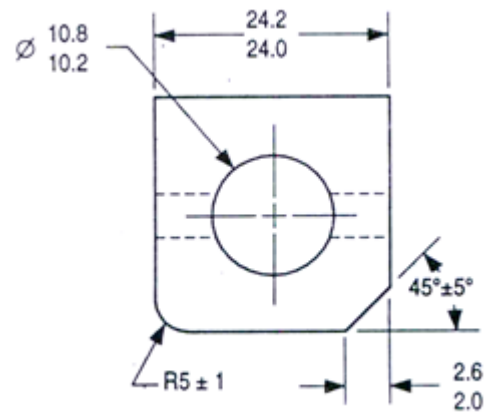
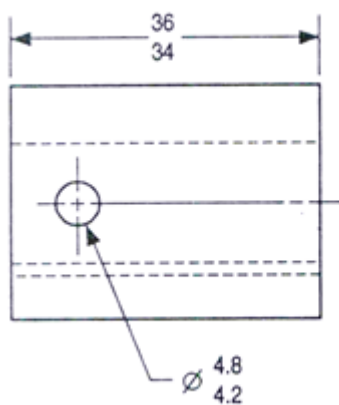


Fig.1

- c) Draw a neat sketch and represent the essential conditions for all the three types of fit for hole based system. **05**

UNIT - III

3

Fig.1 shows the details of Petrol Engine Connecting rod. Draw the following assembled views to 1:1 SCALE. Mark the section plane in the top view.

60

- (i) Front view showing top half in section
(ii) Top view.

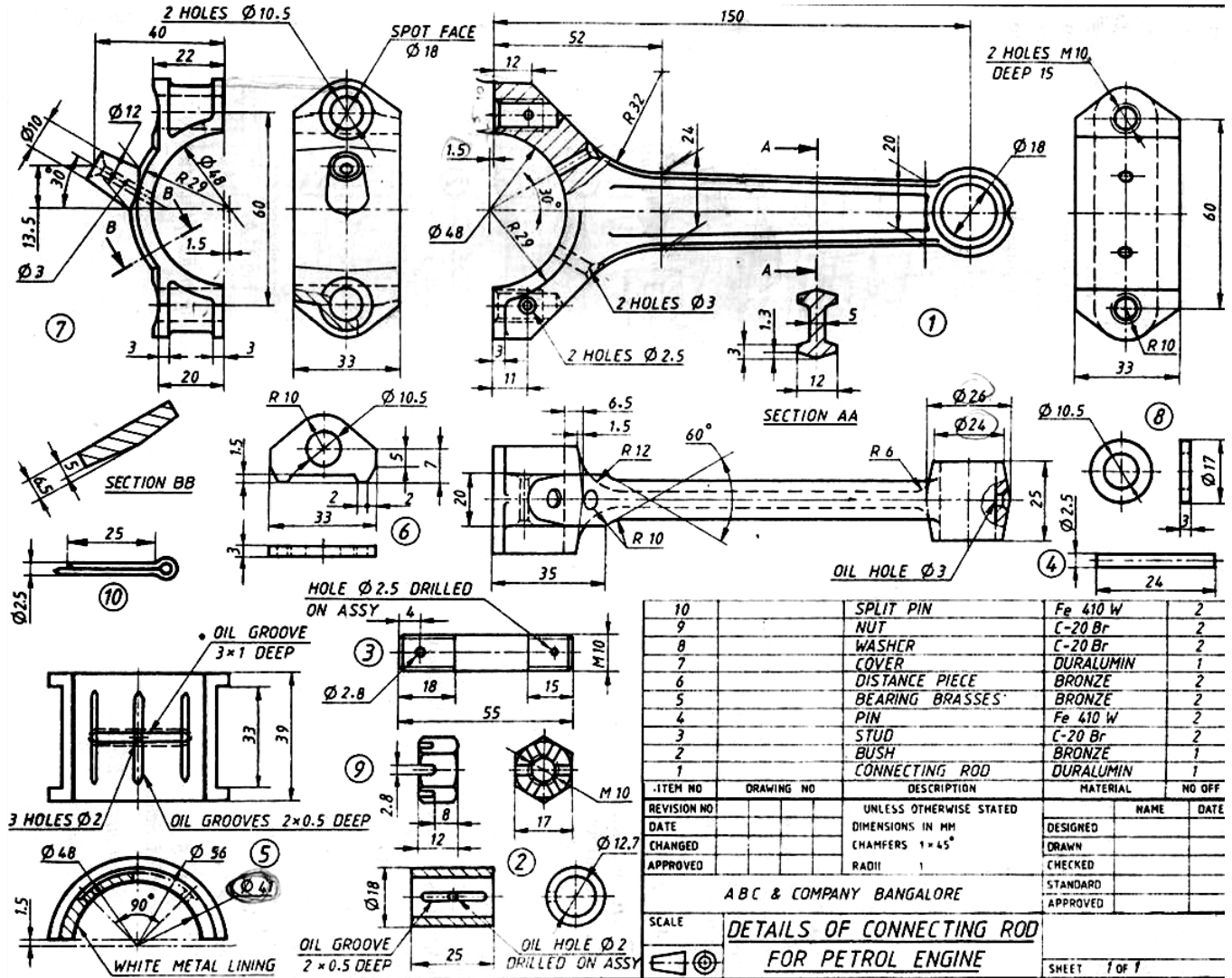


Fig. 2: Details of a Petrol Engine Connecting Rod
