



C20-A-407

7407

BOARD DIPLOMA EXAMINATION, (C-20)
OCTOBER/NOVEMBER—2023
DAE – FOURTH SEMESTER EXAMINATION
AUTOMOBILE ENGINEERING DRAWING

Time : 3 Hours]

[Total Marks : 60

PART—A

5×4=20

- Instructions :** (1) Answer **all** questions.
(2) Each question carries **five** marks.
(3) Draw proportionate sketches choosing your own dimensions.

1. Draw a neat sketch of cam shaft and label its parts.
2. Draw a neat sketch of valve and name its parts.
3. Fig. 1 shows the linkage bracket. Draw the elevation in the direction of C.

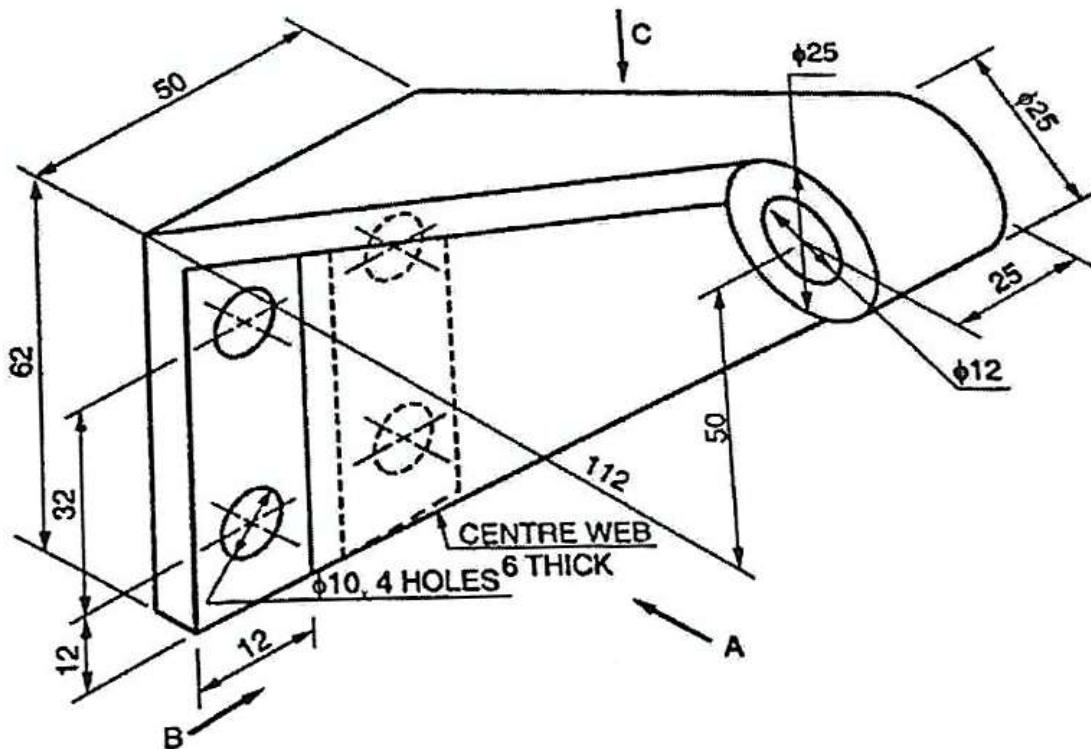


Figure : 1

4. Fig. 2 shows the isometric view of an engine mount. Draw its front view in the direction of A :

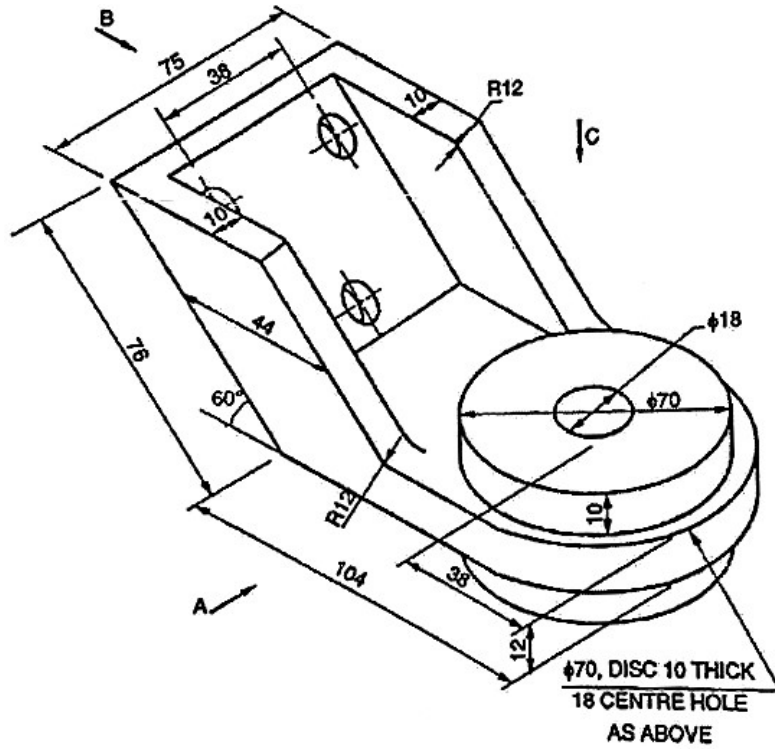


Figure : 2

- Instructions :** (1) Answer **all** questions.
 (2) Use first angle projection.
 (3) Assume any missing dimensions suitably.
5. Draw the full sectional front view in the direction B for the following connecting rod as shown in figure 3.

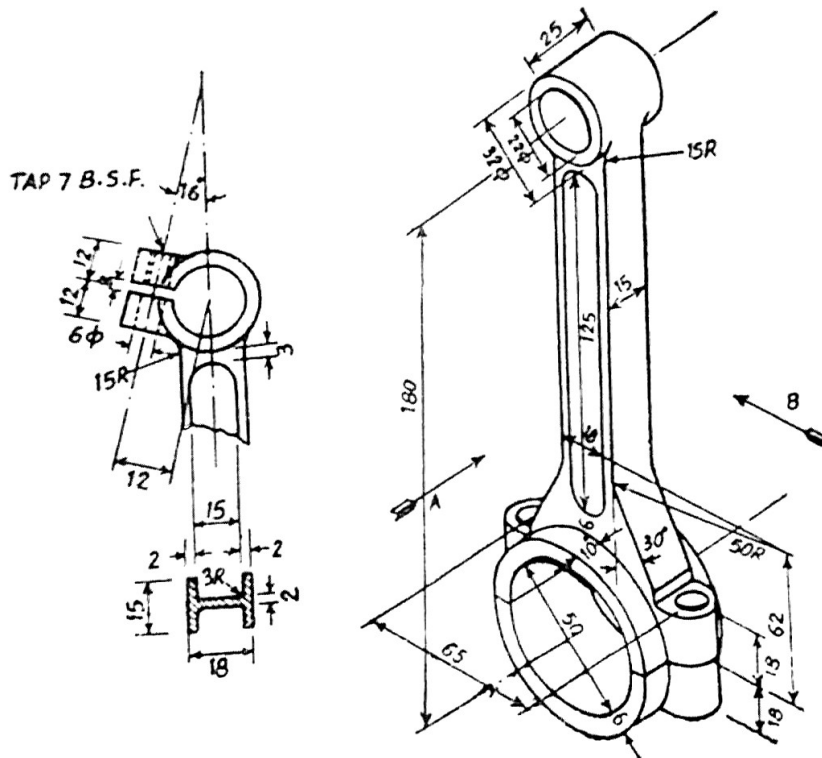


Fig. 3

6. Draw the profile of a cam to given the following motion to a reciprocating follower with a flat contact of face :
- Out stroke during 120° of cam rotation
 - Dwell for the next 300° of cam rotation
 - Return stroke during 120° of cam rotation
 - Dwell for the remaining 900° of the cam rotation

The stroke of the follower is 30 mm and the minimum radius of the cam is 25 mm. The follower moves with uniform velocity during both outstroke and return stroke. The axis of the follower passes through the axis of the cam shaft.

7. Fig. 4 shows the details of master cylinder. Assemble all the parts and draw the following views of the master cylinder :

- (a) Elevation — right-half in section
- (b) Plan

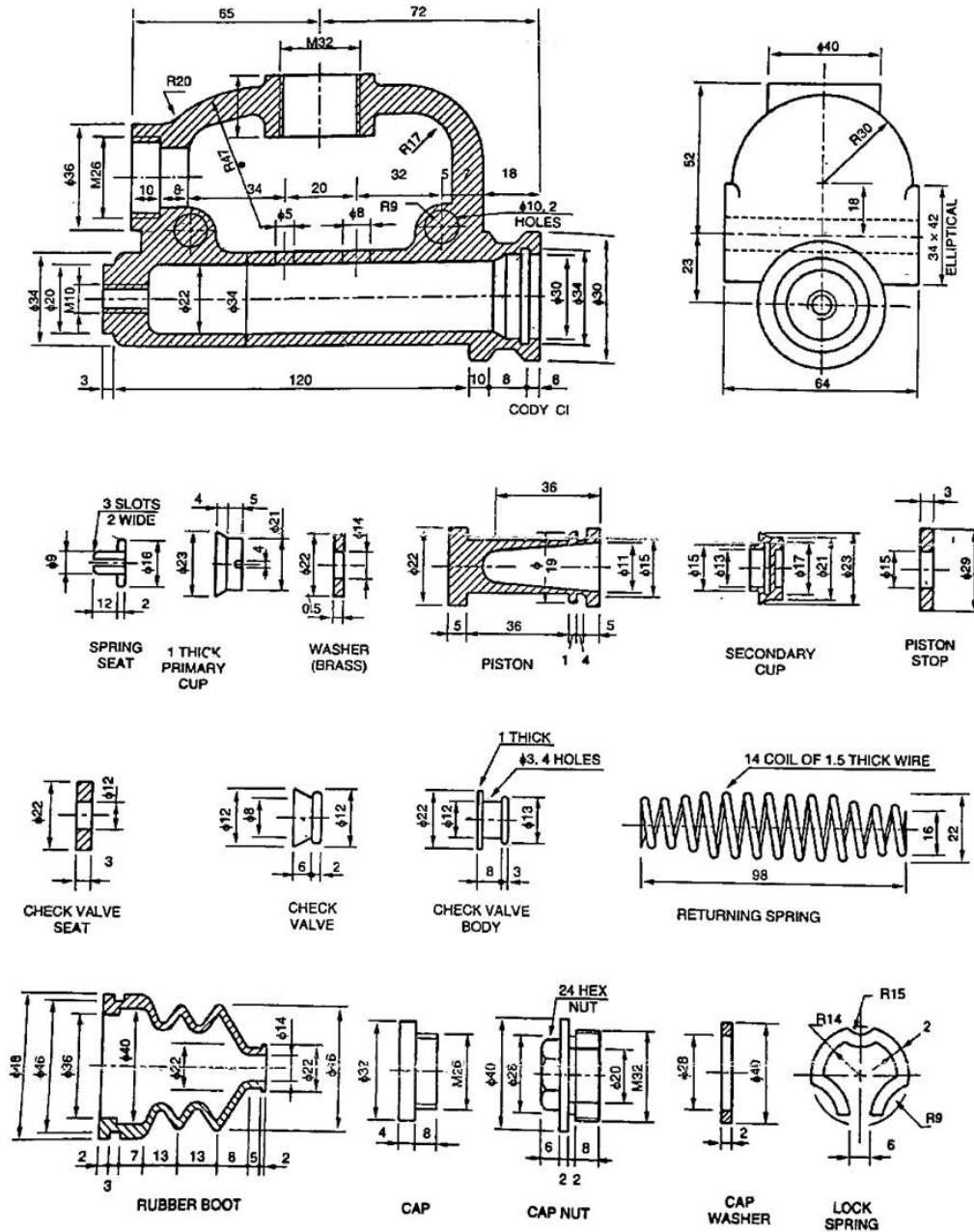


Figure 4.

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