

B.E. MECHANICAL ENGINEERING SECOND YEAR FIRST SEMESTER EXAM 2019

MACHINE DRAWING- I

Time: Four hours

Full Marks: 100

Answer Question No 1 and any one from the rest

Missing data, if any, are to be reasonably chosen. All dimensions are in mm

1. Draw the assembly drawing of the Plummer block (half sectional front and top view). The detailed drawing of the Plummer block is shown in Figure Q1.

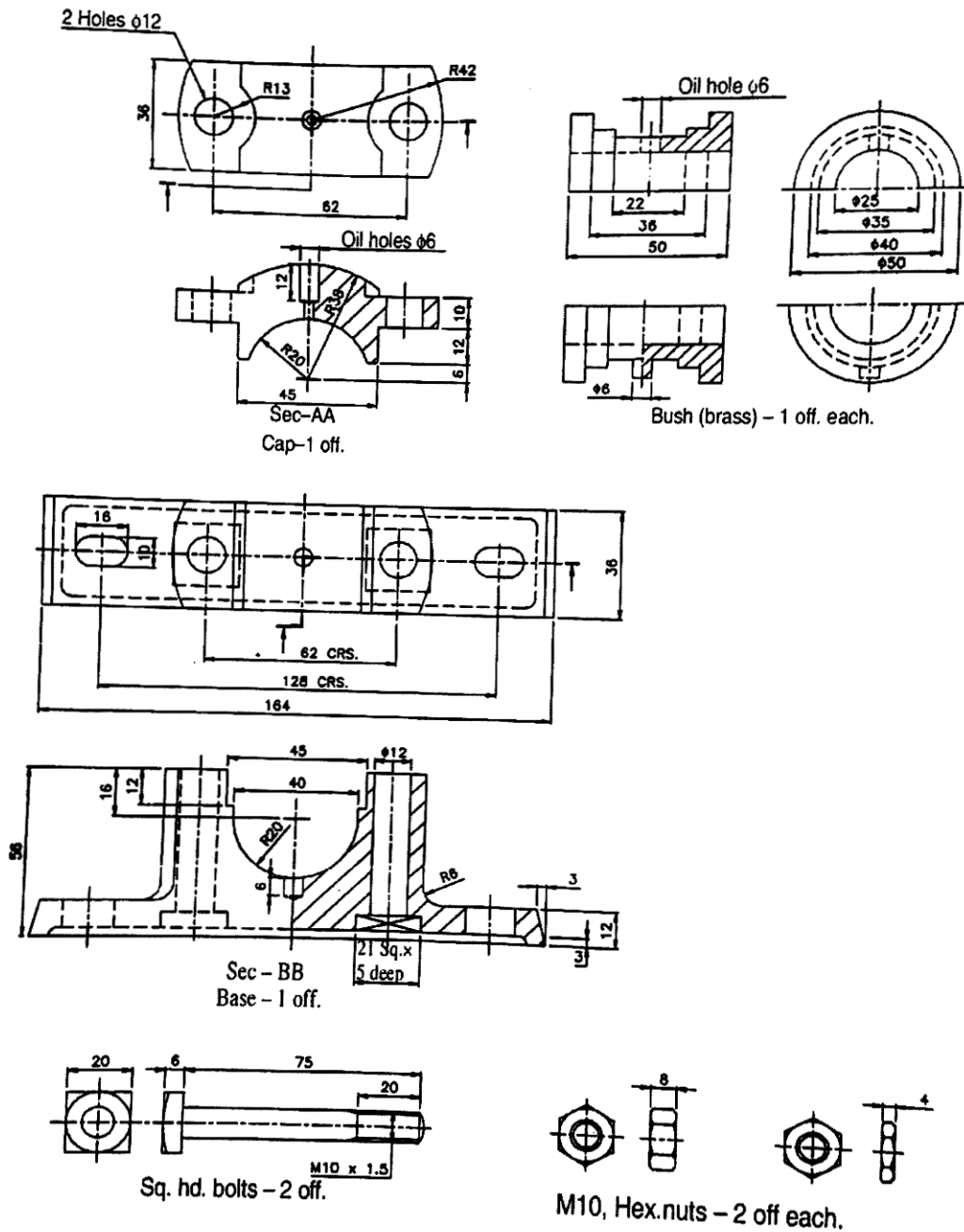


Figure Q1

2. Draw the sectional front view and side view of the bush pin type flexible coupling. Standard proportions are given below:

Shaft diameter 30 mm, Boss/hub diameter 60 mm, Pin circle diameter 120 mm, Length of the boss/hub or key 50 mm, Overall diameter 220 mm, Clearance 2 mm, both Flange thickness 35 mm, Thickness of protective circumferential flange 12 mm, Total length of the protective flange 40 mm, number of pins 4. Pin dimensions are shown in Figure Q2.

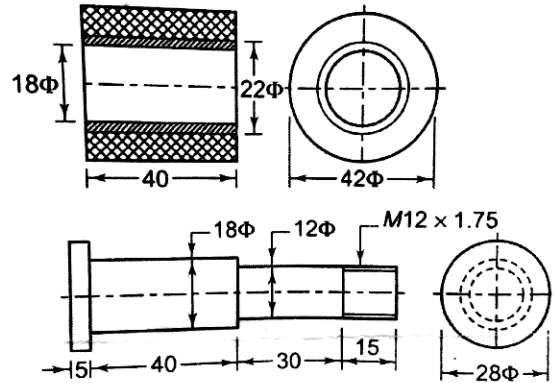


Figure Q2.

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3. Draw the sectional front view and top view of a double riveted single strap butt joint (zigzag type). Take thickness of the main plates= 8 mm, cover plate thickness= 5 mm, diameter of the rivet= 12 mm, and pitch= 36 mm.

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