MECHANICAL ENGINEERING DRAWING-I
3rd Exam/Mech./9053/Jun'2022
(For 2018 Batch Onwards)

Duration: 4Hrs.   **M.Marks:75**
Note: Attempt any three questions.   **3x25=75**

Q1. Explain the following terms:-
  a. Tolerance and its types
  b. Types of Fits
  c. Allowance
  d. Clearance
  e. Limits

Q2. A right circular cylinder of 50mm diameter and height 70mm, is resting on its base on horizontal plane (H.P.). It is completely penetrated by another cylinder of 35mm diameter and 70mm length, such that their axes bisect each other's at right angles and are parallel to vertical plane (V.P.). Draw their projections showing curves of intersection on the two cylinders.

Q3. Draw freehand sketch of wall bracket (Front and Top view)

Q4. Figure 1 shows the detail drawing of foot step bearing. Assemble all these parts and draw its full sectional front view and top view.

Q5. Figure 2 shows the detail drawing of expansion pipe joint. Assemble its parts and draw its front view full in section and side view.
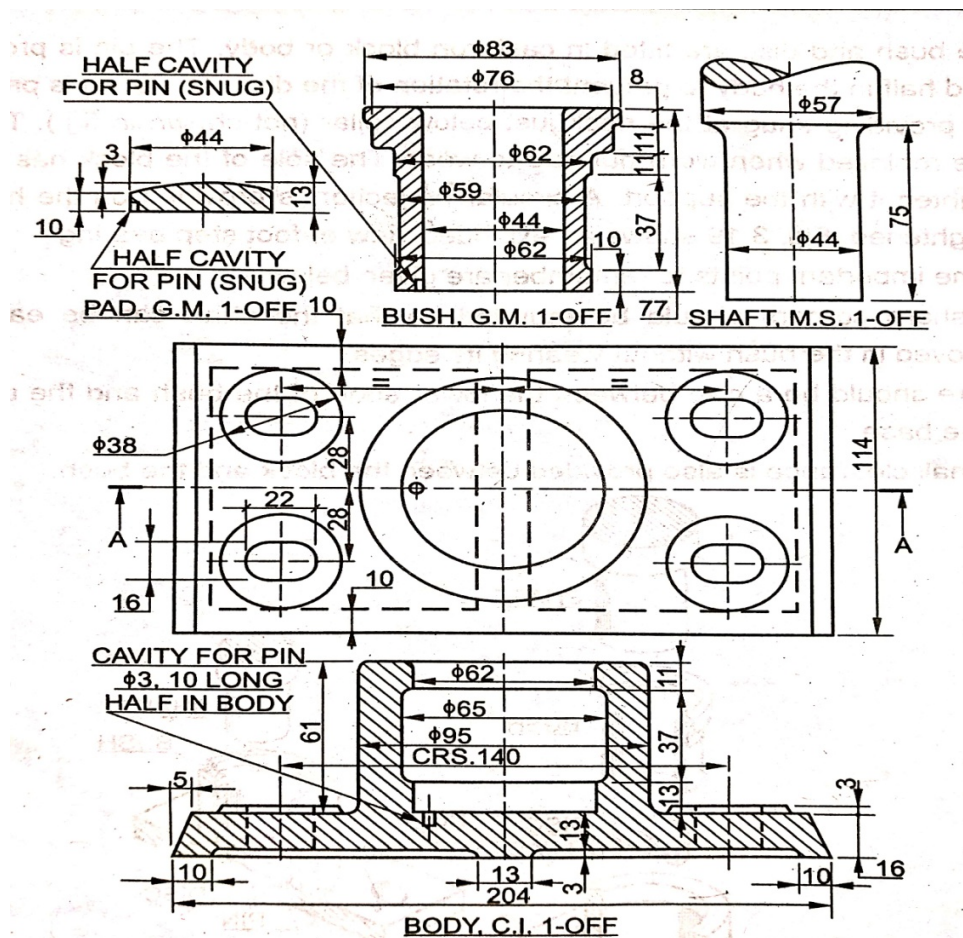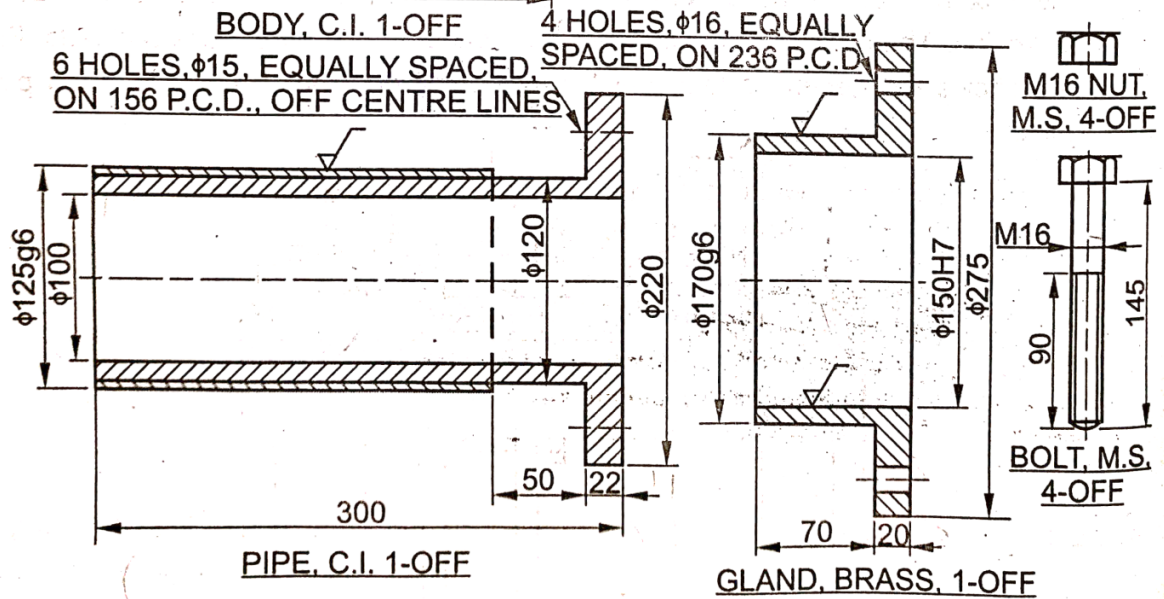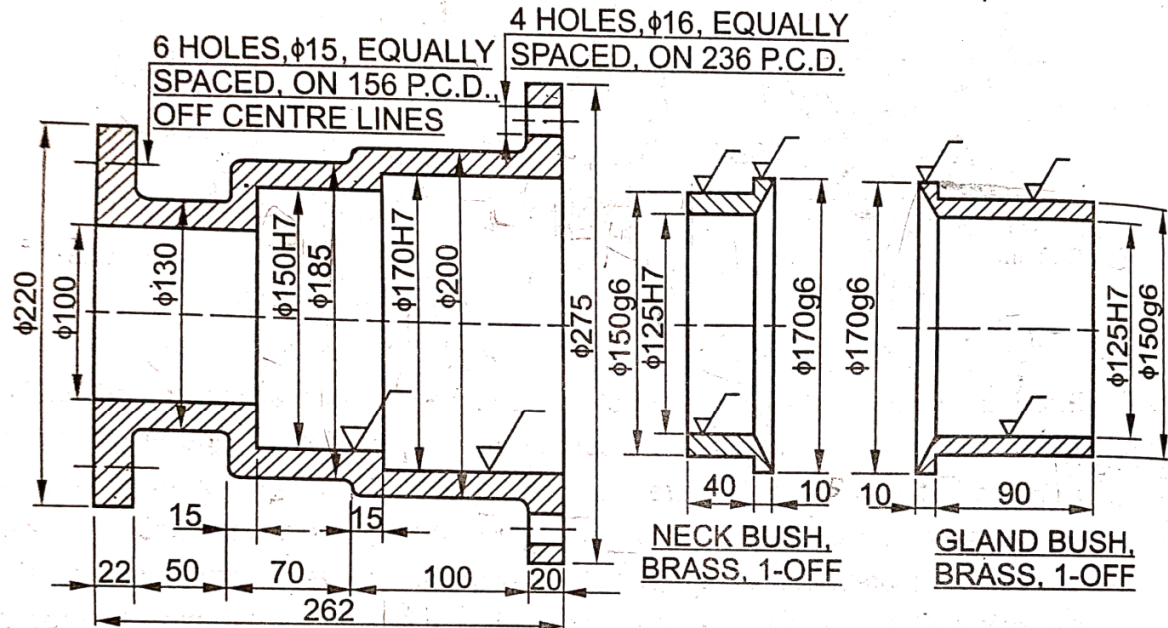
Figure 1

6 HOLES, φ15, EQUALLY SPACED, ON 156 P.C.D., OFF CENTRE LINES

4 HOLES, φ16, EQUALLY SPACED, ON 236 P.C.D.

φ220
φ100
φ130
φ150H7
φ185
φ170H7
φ200
φ275
φ150g6
φ125H7
φ170g6
φ170g6
φ125H7
φ150g6

15
15
22
50
70
100
20
262

BODY, C.I. 1-OFF

40   10   10   90

NECK BUSH, BRASS, 1-OFF

GLAND BUSH, BRASS, 1-OFF

6 HOLES, φ15, EQUALLY SPACED, ON 156 P.C.D., OFF CENTRE LINES

4 HOLES, φ16, EQUALLY SPACED, ON 236 P.C.D.

M16 NUT, M.S. 4-OFF

φ125g6
φ100
φ120
φ220
φ170g6
φ150H7
φ275

M16
145
90

50   22
300

PIPE, C.I. 1-OFF

BOLT, M.S. 4-OFF

70   20

GLAND, BRASS, 1-OFF

Figure 2