S.B. Roll No.....

MECHANICAL ENGINEERING DRAWING – I

3rd/Mech/RAC/Prod/Auto/0534/0053/5347/May'16

Duration: 3Hrs **M. Marks=75**

Note: If any dimension is not clear/missing, assume proportionate value for the same.

Q 1 Explain the following (i) Unilateral Tolerance (ii) Bilateral Tolerance (iii) Nominal Size (iv) Maximum Size (v) Minimum Size. **10**

Q 2 A vertical cylinder of diameter 60 mm and height 110 mm is resting on base in HP penetrated completely by another cylinder of same height but diameter 44 mm. The axes of both the cylinders are perpendicular, intersecting and bisecting to each other. Draw the projections of cylinders also show the curves of intersection. **20**

Q 3 **Figure A** shows the detailed drawing of a Foot step bearing. Assemble all the parts together and draw its following orthographic views (i) Front view full in section (ii) Top view outside. **30**

OR

Figure B shows the detailed drawing of an expansion pipe joint. Assemble all the parts together and draw its following orthographic views (i) Front view full in section (ii) End view. **30**

Q 4 **Figure C** shows the details of the drawing of a of V-belt pulley. Draw its following orthographic views

(i) Elevation upper half in section **(ii)** Side view **15**

OR

Figure D shows the detailed drawing of Hooke's joint. Assemble all the parts together and hence draw following orthographic view **(i)** Elevation full in section **(ii)** Top view outside **15**

S.B. Roll No.....

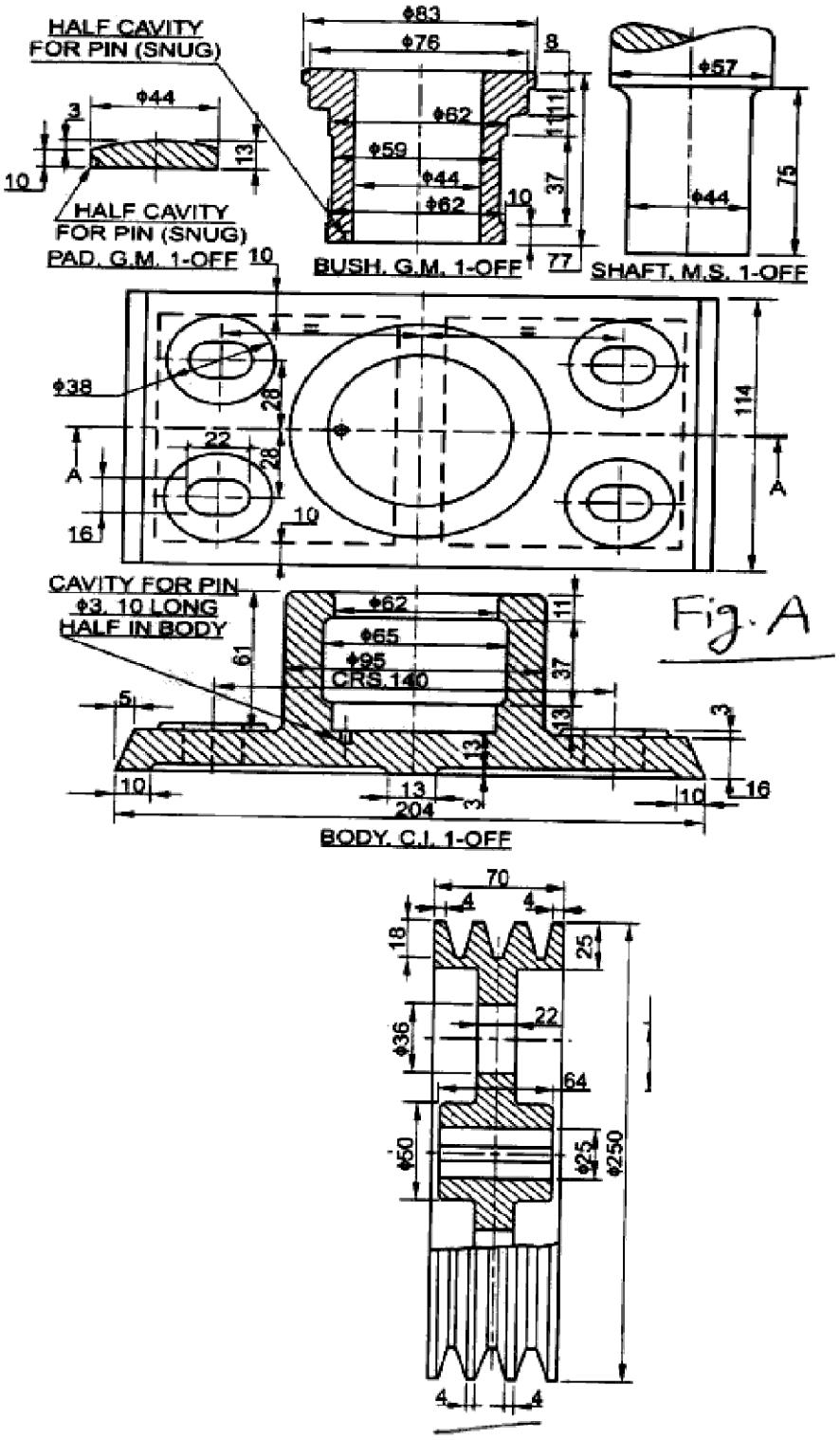

Figure C

S.B. Roll No.....

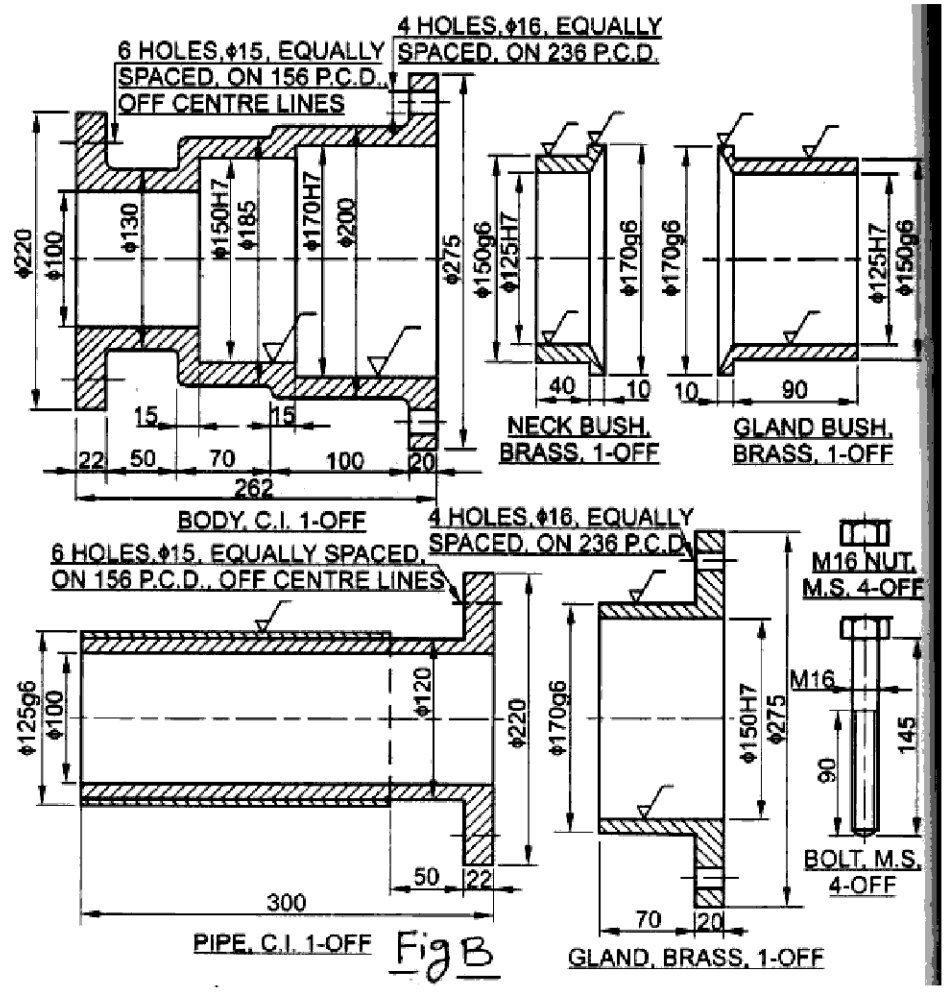

Fig B

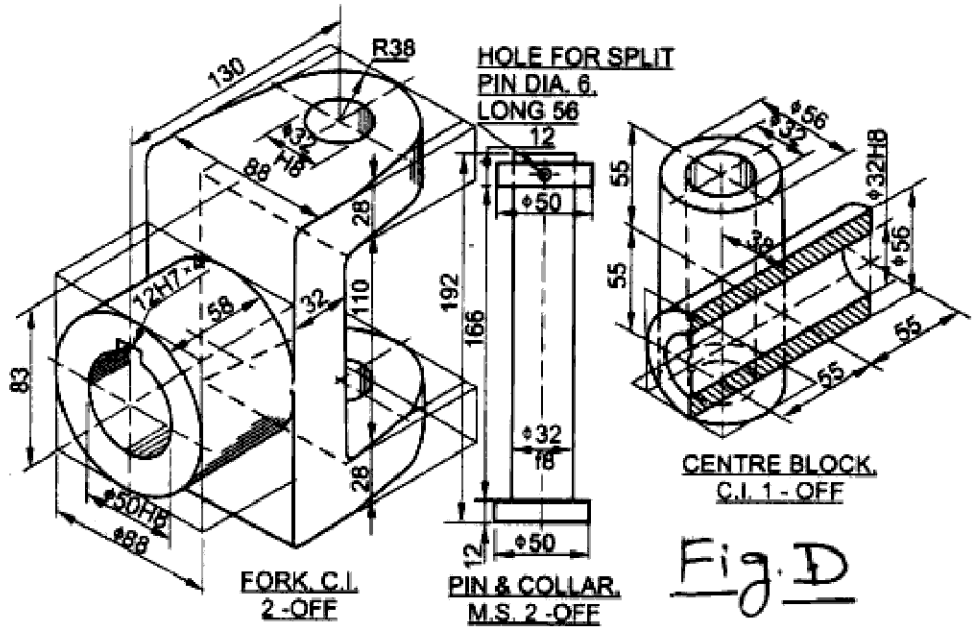

Fig. D