FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
SCHOOL OF TECHNOLOGY EDUCATION
DEPARTMENT OF INDUSTRIAL AND TECHNOLOGY EDUCATION
2011/2012 SECOND SEMESTER EXAMINATION

COURSE: - MWT 512: Mechanical Engineering Drawing II
TIME ALLOWED: - 2hours.
INSTRUCTION: - Answer all questions in Section A and any two questions in Section B. All questions carry equal marks.

SECTION A

1. Define the following terms in relation to limits and tolerances: (i) clearance fit; (ii) interference fit; (iii) transition fit; (iv) basic size; and (v) actual size.

2. Certain elements/features have a conventional way of representing them in engineering drawing. Draw a diagrammatic representation of the following: (i) concrete; (ii) glass; (iii) timber; (iv) liquid; and (v) tension spring.

SECTION B

3. Figure 1 shows the front elevation and plan, in third angle projection, of a cone with an on-centre cylindrical branch off. Develop, full scale, the curve of intersection and develop the pattern for the cone.

4. Figure 2 shows the front and end elevations of a cast iron bracket in third angle projection. Reproduce the end elevation and draw the sectional front elevation along cutting plane X – X.

5. The component parts of a bearing bracket are shown in Figure 3. Produce the end elevation of the assembly drawing.

6. A delivery spout is made up of a conic section and a cylindrical part as shown in Figure 4. Reproduce the given elevations, determine the joint line and develop the pattern for the conic section.

-/ejo/-

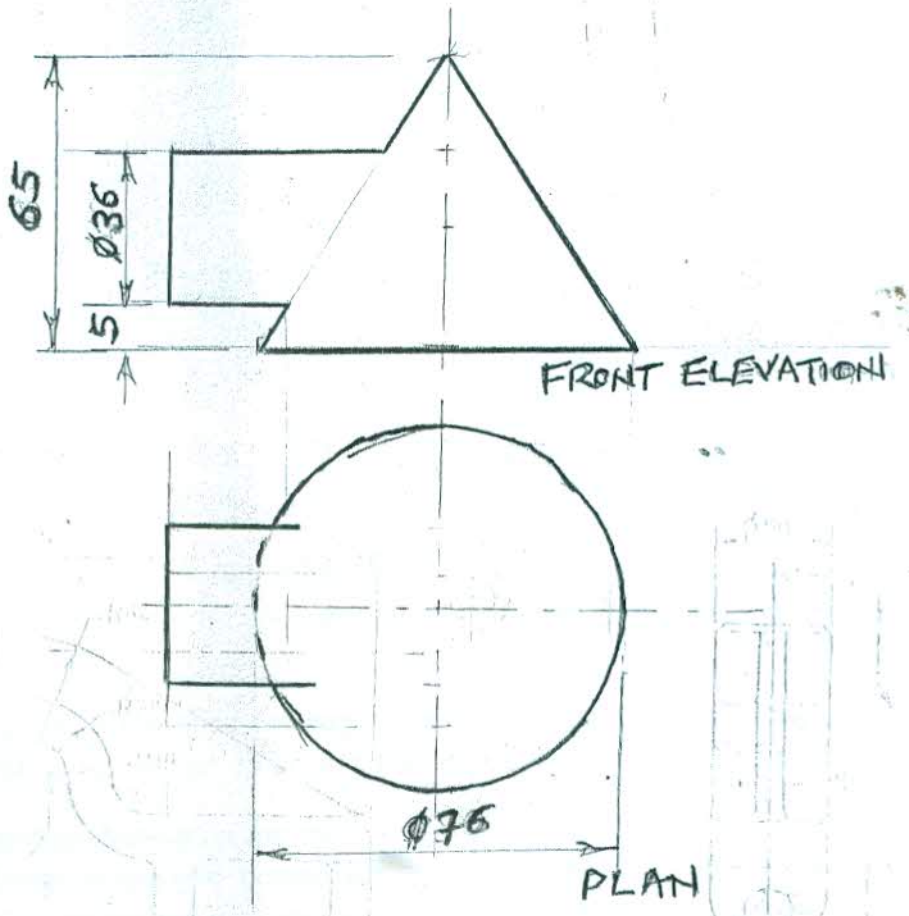

Figure 1

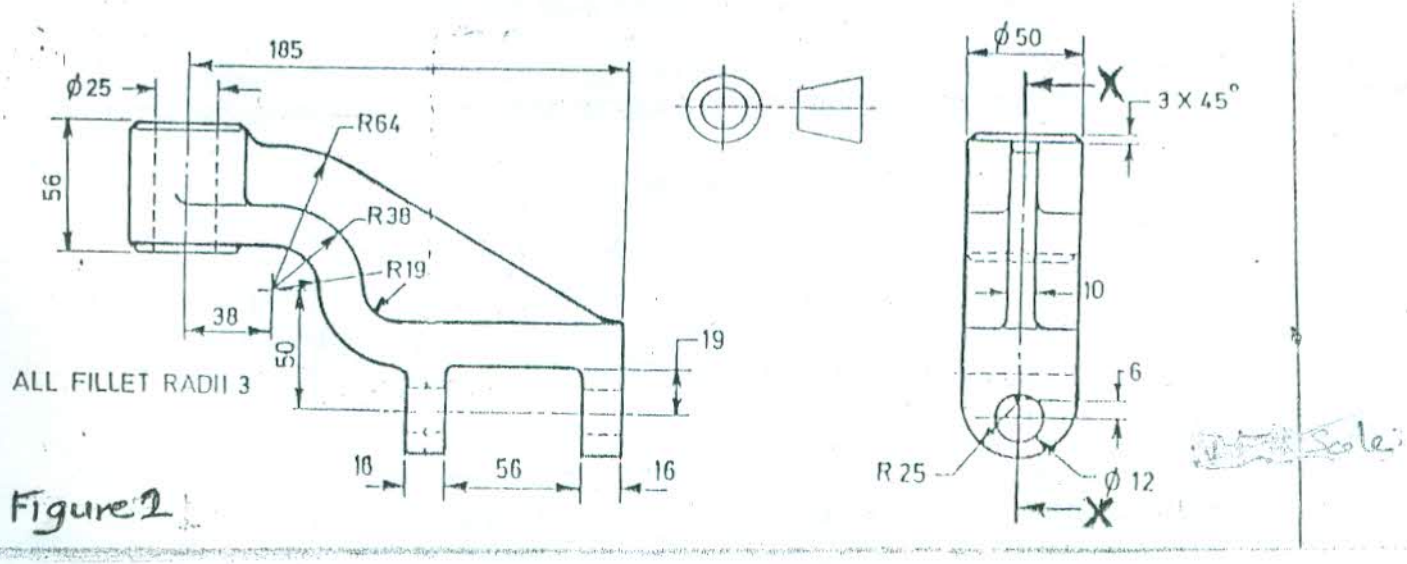

Figure 2

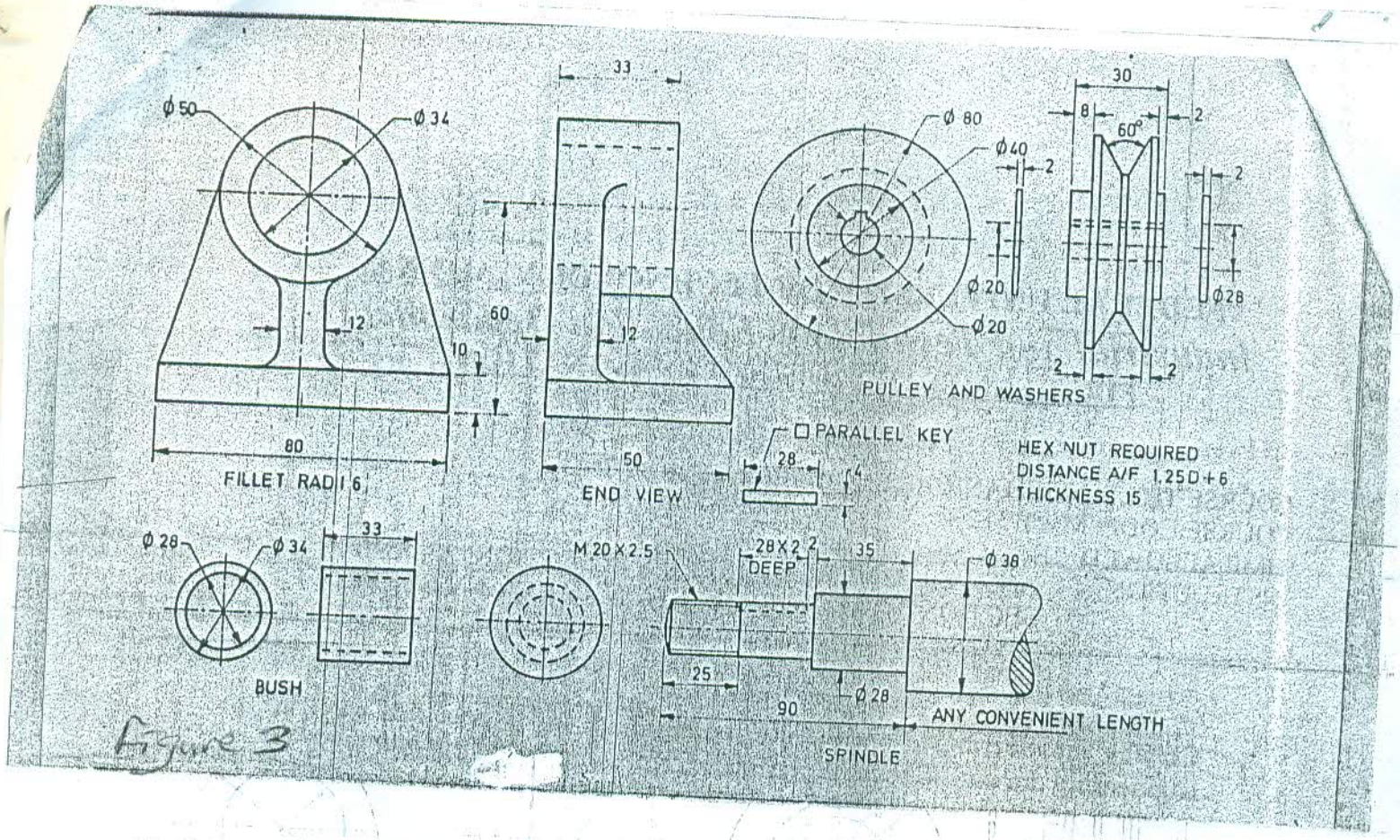

Figure 3

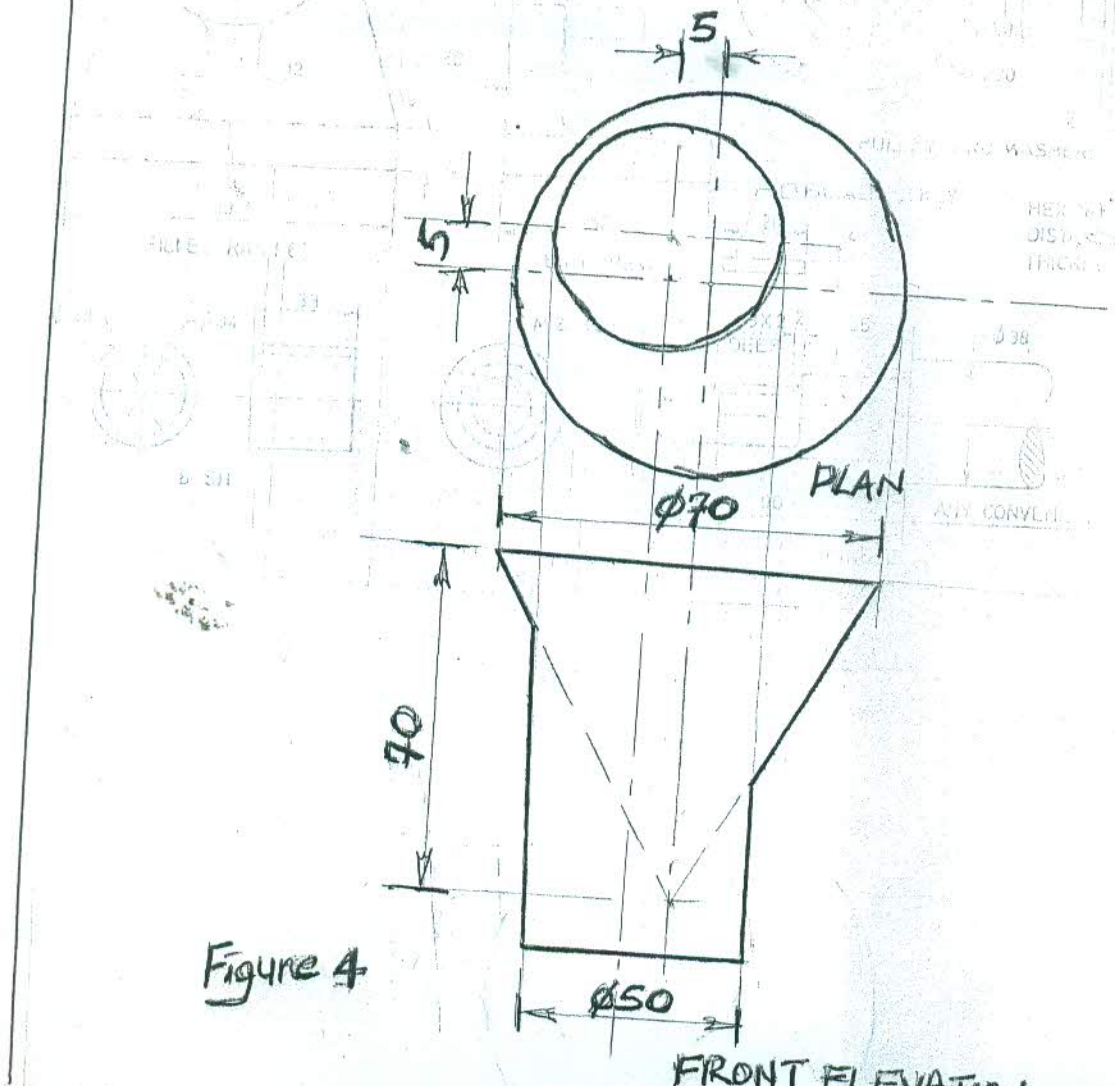

Figure 4