

TECHNICAL DRAWING - COMMON LEVEL - PAPER II

WEDNESDAY, 20 JUNE, 9.30 - 12.00

N.B. Answer either Section A or Section B

Section A (Engineering)

INSTRUCTIONS

- (a) All questions to be attempted.
- (b) Drawings and sketches should be in pencil unless otherwise stated.
- (c) Where dimensions are omitted they may be estimated.
- (d) Credit will be given for neat orderly presentation of work.
- (e) Candidates should work on one side of the paper only.
- (f) The Examination Number should be written on each drawing sheet used.

1. Details of an adjustable vee location device are given in Fig. 1, with the parts list tabulated below:-

Index	Part	No. Reqd.
1	Guide Block	1
2	Sliding Vee	1
3	Base	1
4	Adjusting Hand Nut	1
5	Stud	1
6	Location Dowel	2
7	Socket Screw	2

Assemble the parts together and draw in first angle projection:-

- (i) A sectional elevation as seen when viewing in the direction of the arrows A - A.
- (ii) A half plan view projected from (i).

The solution should include the title ADJUSTABLE VEE LOCATION DEVICE, the I.S.O. symbol for first angle projection and four leading dimensions.

(110 marks)

2. An exploded view of a gib and cotter joint for rectangular shafts is shown in Fig. 2. Sketch freehand the following views of the assembly:-

- (i) A sectional elevation, this view should show clearly how the joint is locked.
- (ii) A plan view projected from (i).
- (iii) An end elevation as seen when looking from right to left at (i).

The views should be drawn in either first or third angle projection. The sketch should be in good proportion to the dimension given and be freehand on the plain drawing paper supplied. Add the title GIB AND COTTER JOINT and the I.S.O. symbol for the method of projection used in the sketch.

(40 marks)

3. Two views of a machine jig are shown in Fig. 3.

Trace, in ink on the tracing paper provided, a sectional elevation. The jig is cut by two parallel planes as shown as S - S.

OR

An assembly drawing of a cable roller is shown in Fig. 4.

Make fully dimensioned working drawings of the roller (part 1.) and the support (part 2). The dimensions for the drawings should be taken from the scale provided. The drawings should be full size in orthographic projection. The number and types of views required for the working drawings are left to the discretion of the candidate.

(50 marks)

LEAVING CERTIFICATE EXAMINATION, 1979

TECHNICAL DRAWING - COMMON LEVEL - PAPER II

WEDNESDAY, 20 JUNE 9.30 - 12.00

SECTION B (BUILDING)

INSTRUCTIONS

- (a) Answer four questions.
 (b) All questions carry equal marks.
 (c) Construction lines must be shown on all solutions.
 (d) Write the number of the question distinctly on the answer paper.
 (e) First or third angle projection may be used.
 (f) All measurements are given in millimetres.

1. The elevation and sectional plan of a window ope are shown in Fig. 1. Draw the given views and show a development of surfaces A and B. Scale 1 : 20

2. Fig. 2 shows the plan and elevation of a display stand. Make a perspective drawing of the stand when the station point (spectator) is as shown, the picture plane 1000 from the station point and the horizon line 1200 above the ground line. Scale 1 : 20

3. Fig. 3 shows the plan of a square vertical post and a supporting strut. The strut makes an angle of 40° with the horizontal plane. Draw the given plan, project the front elevation and develop the surfaces of the strut. Scale 1 : 10

4. The elevation and end view of a wall bracket are shown in Fig. 4. Draw the elevation, project the plan and show the shadows cast on the wall when the direction of the light is 45° in elevation and 45° in plan. Scale 1 : 10

5. Fig. 5 shows the plan of three lean-to roof surfaces. Surface ABDE has a pitch of 35° and surface AFE has a pitch of 40° . The hip rafter BD is inclined at 30° to the horizontal plane.

(a) Draw the plan and elevation of the roof surfaces.

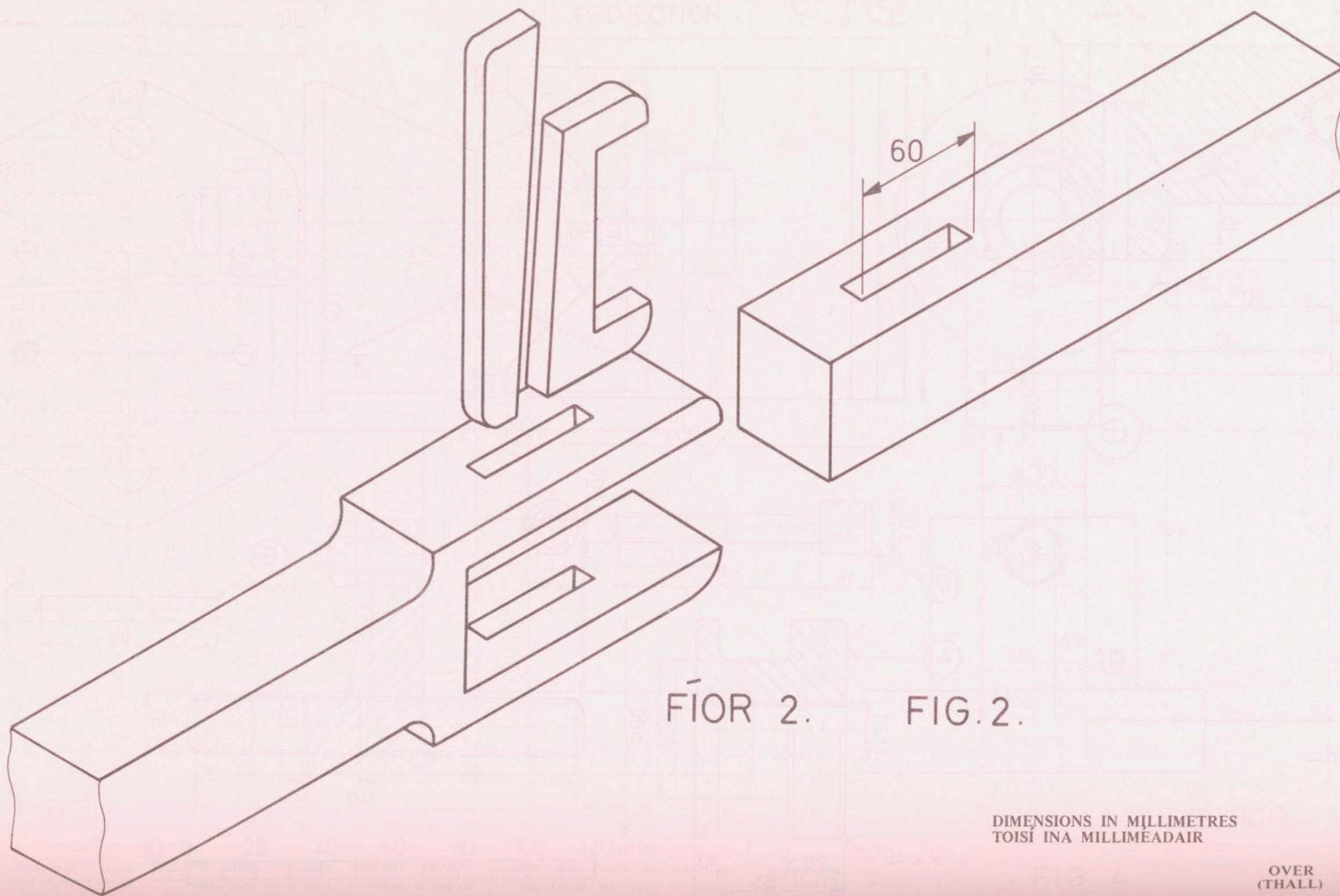
(b) Determine the dihedral angle between the surfaces AFE and ABDE.

Scale 1 : 100

6. The sectional plan of an oblique door arch is shown in Fig. 6. The arch is 500 high and is pointed parabolic when viewed in the direction of the arrow. Determine the front view of the arch and also show a development of the soffit. Scale 1 : 10

7. Fig. 7 shows the plan and cross-section of a mitred cap to a newel post into which a handrail is mitred. Determine the true shape of the section of the handrail.

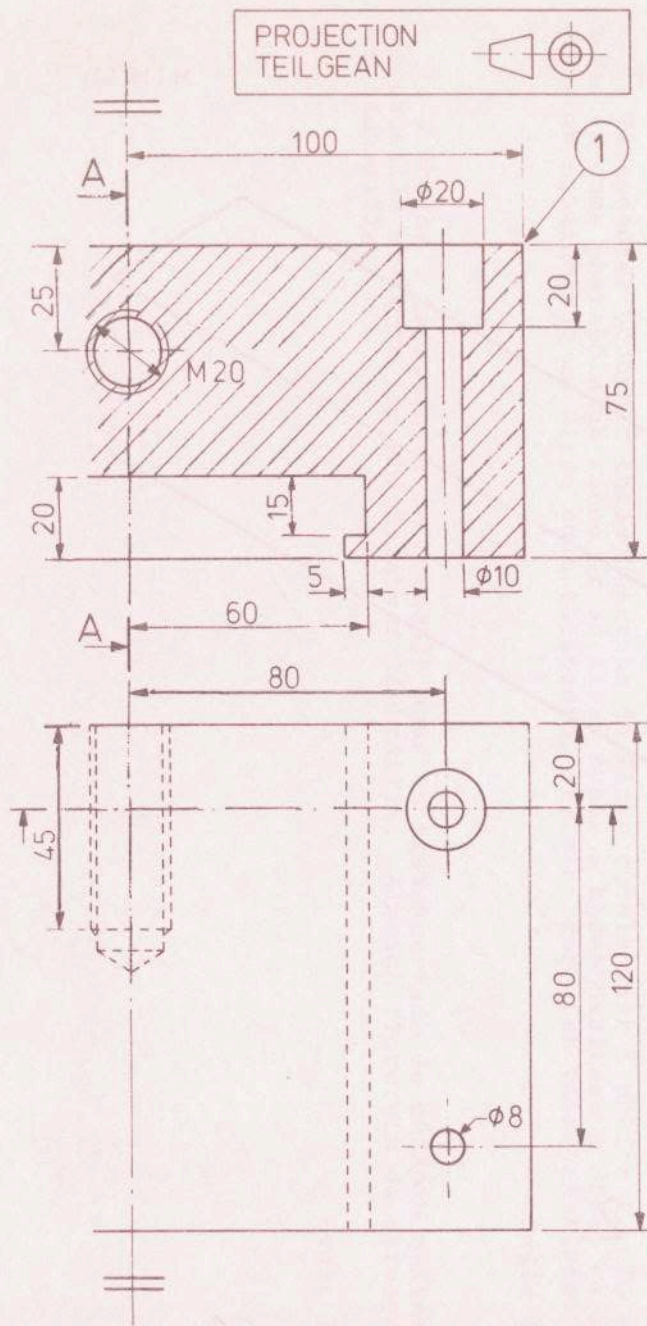
Scale 1 : 1



FÍOR 2. FIG. 2.

DIMENSIONS IN MILLIMETRES
TOISI INA MILLIMEADAIR

OVER
(THALL)



FÍOR 1.

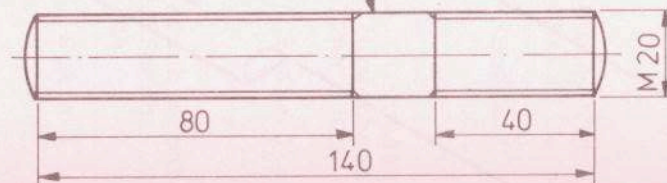
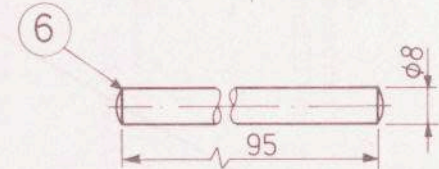
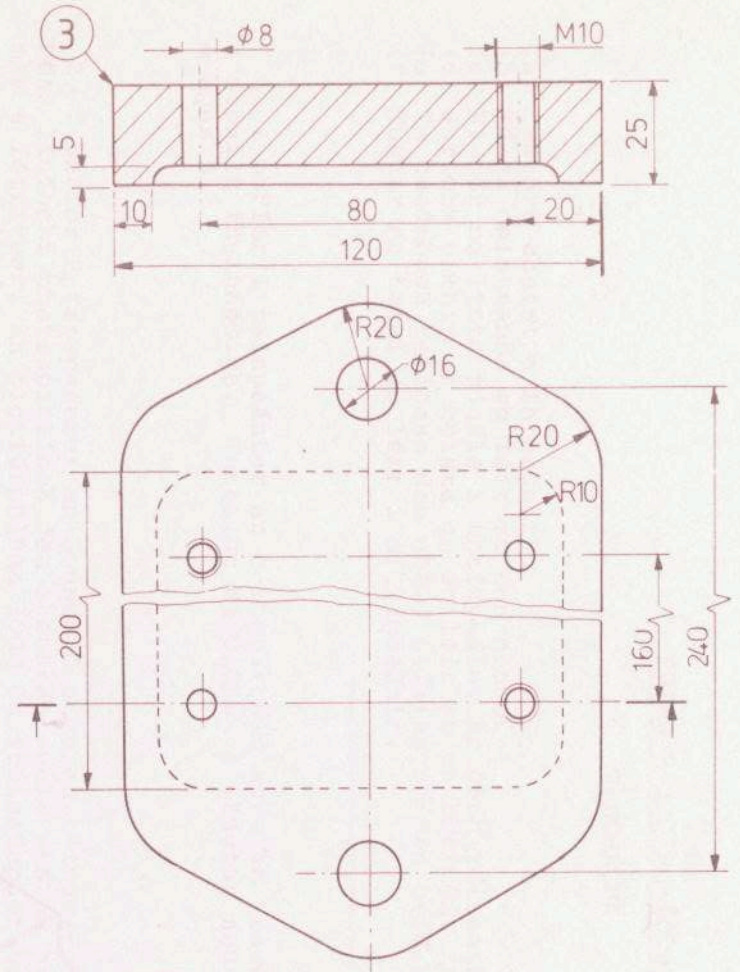
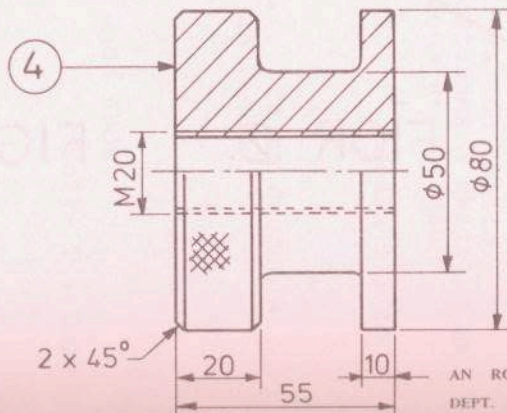
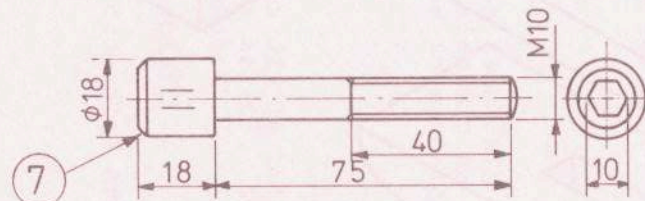
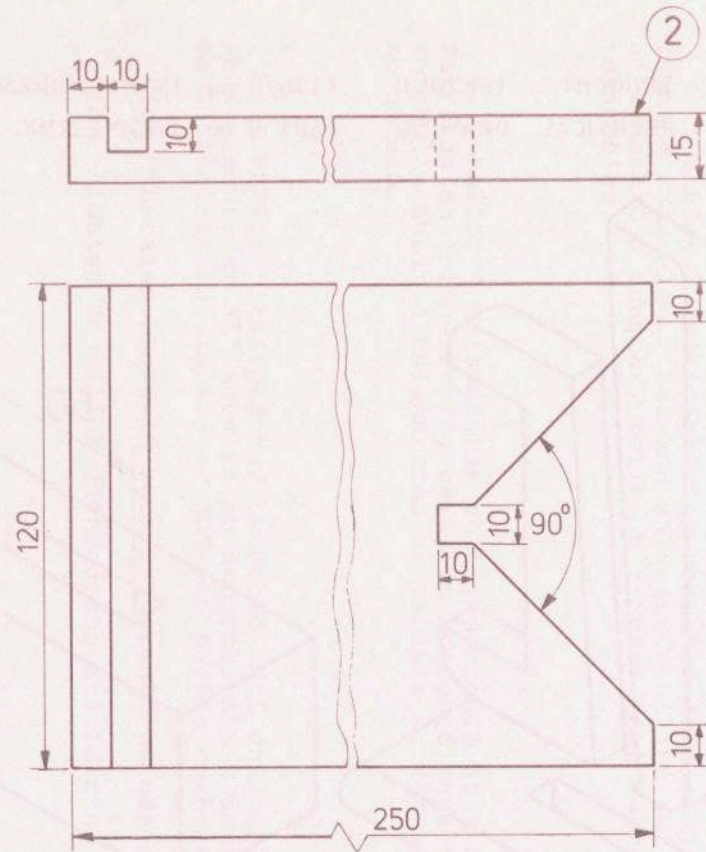
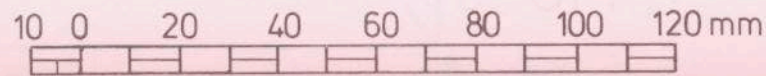
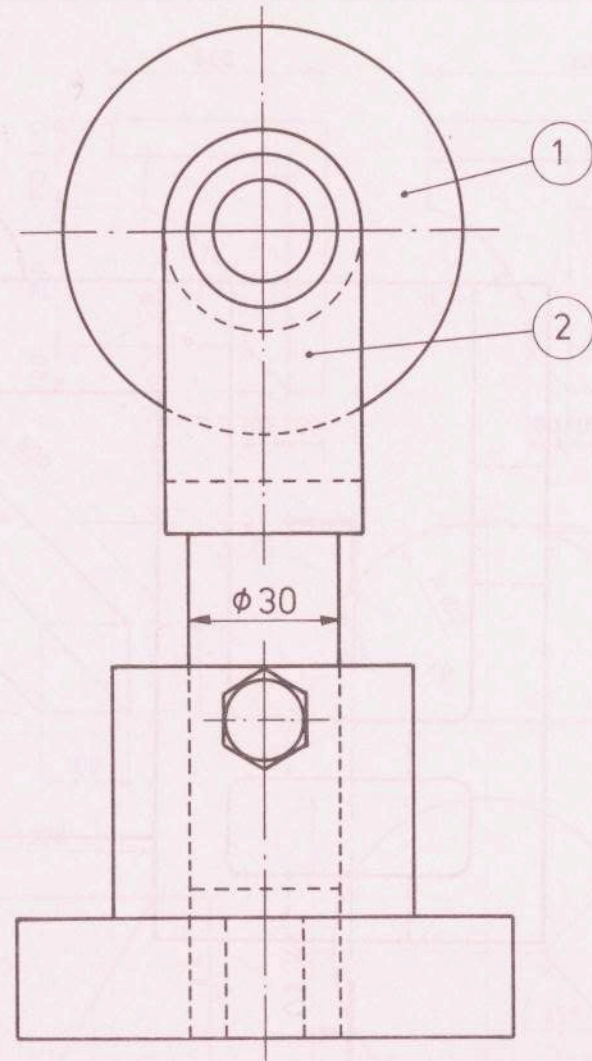
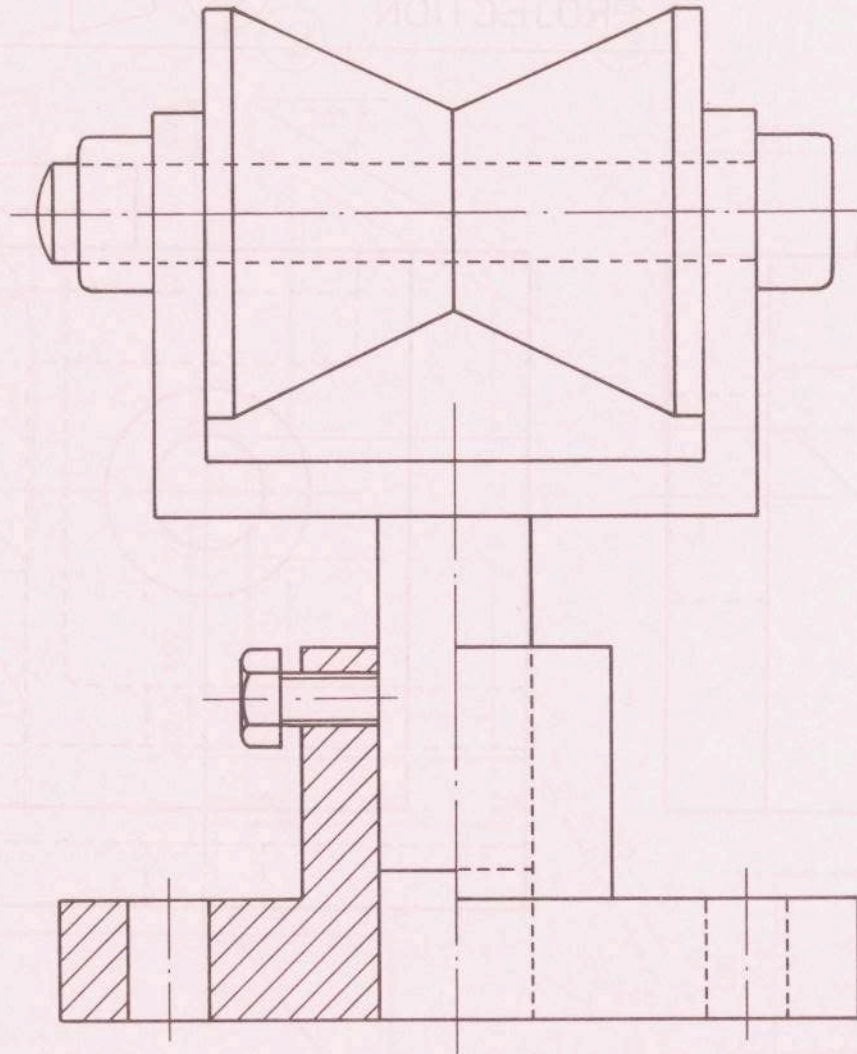
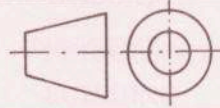


FIG. 1.

PROJECTION
TEILGEAN

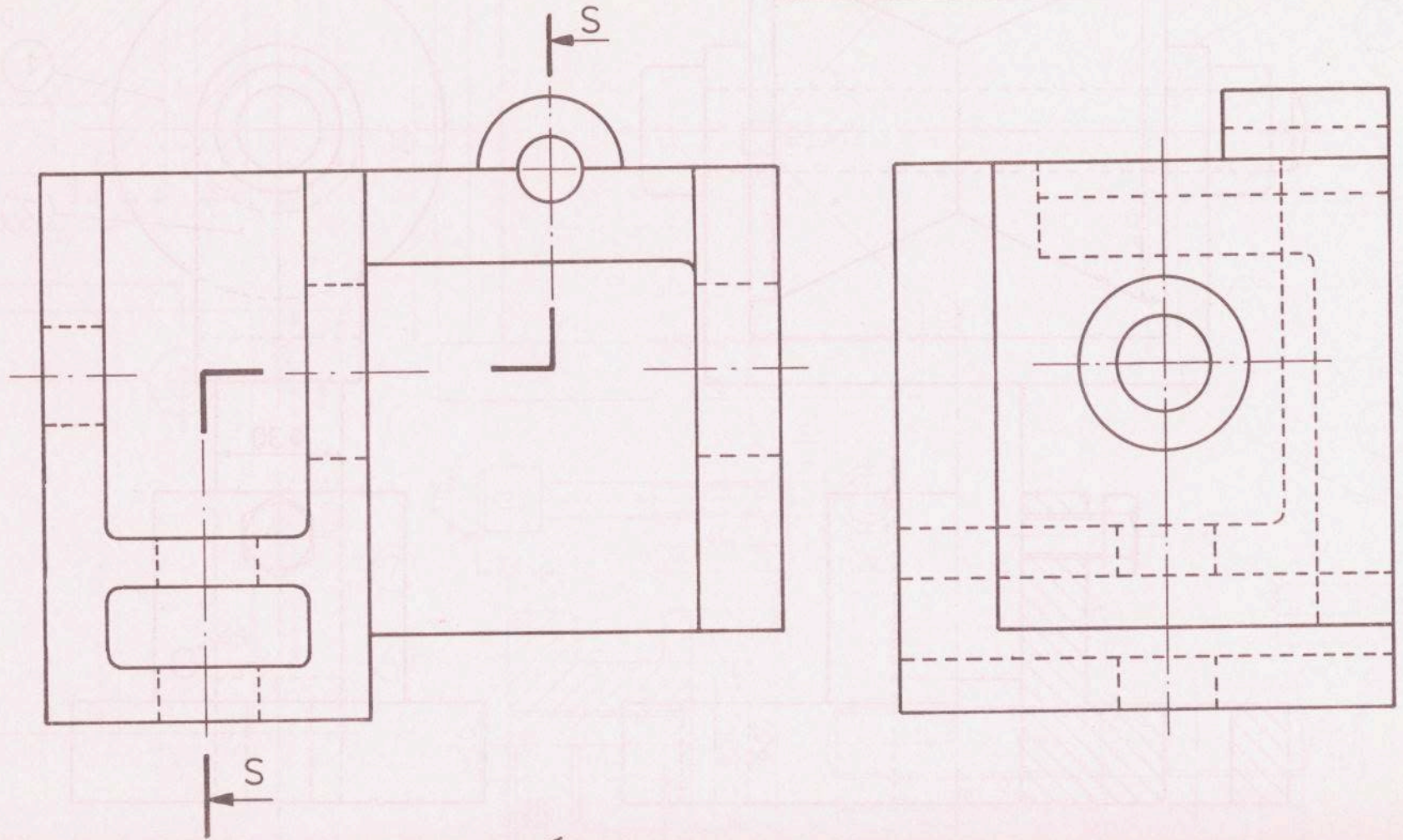
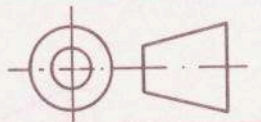
TEILGEAN
PROJECTION



FÍOR 4.

FIG. 4.

TEILGEAN
PROJECTION



FÍOR 3.

FIG. 3.

