

P720/1
GEOMETRICAL & BUILDING DRAWING
 Paper 1
 3 Hours.

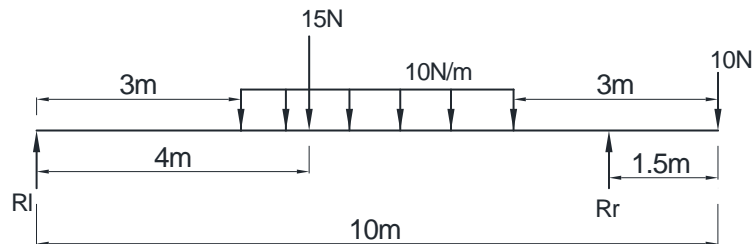
KSS MOCK EXAMINATIONS-2025
 Uganda Advanced Certificate of Education.
TECH. DRAWING Paper 1
 3 Hours.

Instructions.

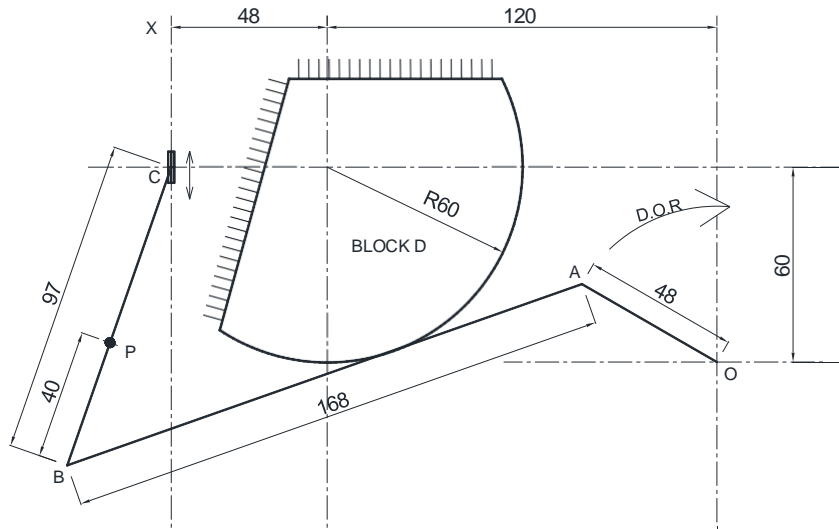
- This question paper consists of two sections A and B.
 - Answer **Five** questions, not more than **three** questions are to be taken from each section.
 - All questions carry equal marks.
 - Unless otherwise stated in the question, strictly geometrical methods must be used, but lines parallel, perpendicular or inclined at angles of 30° , 45° , or 60° to other lines, may be drawn without showing construction lines.
 - All dimensions of figures are in **millimeters**, unless stated otherwise.
- BLESSINGS.**

SECTION A.

- 1) The figure shows a beam loaded with concentrated loads and uniformly distributed loads. Determine;
- | | |
|---|--------------|
| i) Support Reactions, | 08mks |
| ii) Shear force & Bending moment diagrams, | 08mks |
| iii) Shear force and Bending moments at 6m from support R_l . | 04mks |

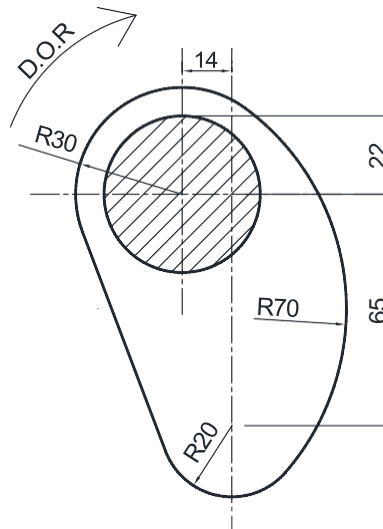


- 2) The figure below shows a mechanism in which crank **OA** rotates about **A** as the rod **AB** is constrained to move in contact with the surface of a fixed block **D**. the rod **AB** is also pin-jointed to rod **BC**. Rod **BC** slides along axis **x-x**. Plot the locus of point **P** as crank **OA** rotates.



20mks

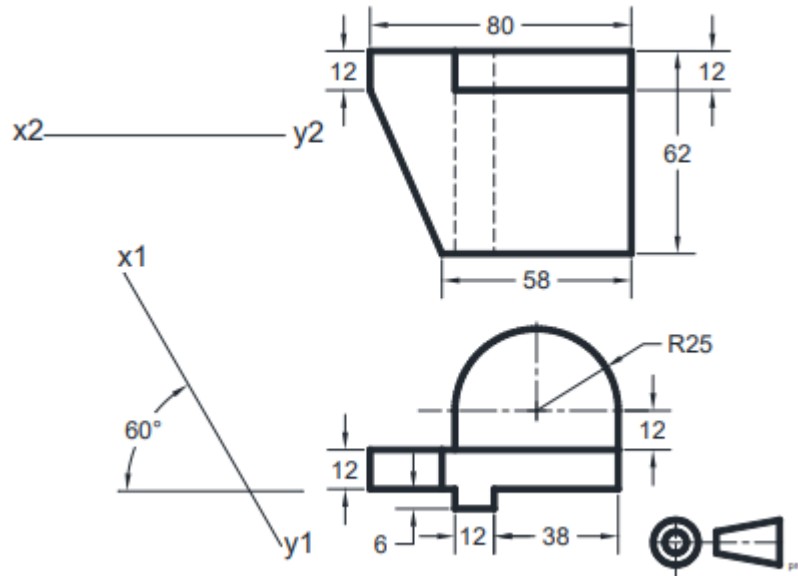
- 3) The figure shows a cam profile designed to operate an inline flat follower while rotating in a clockwise direction. Construct the given cam profile and derive a performance graph from it. Indicate and state the follower Lift/fall. **20mks**



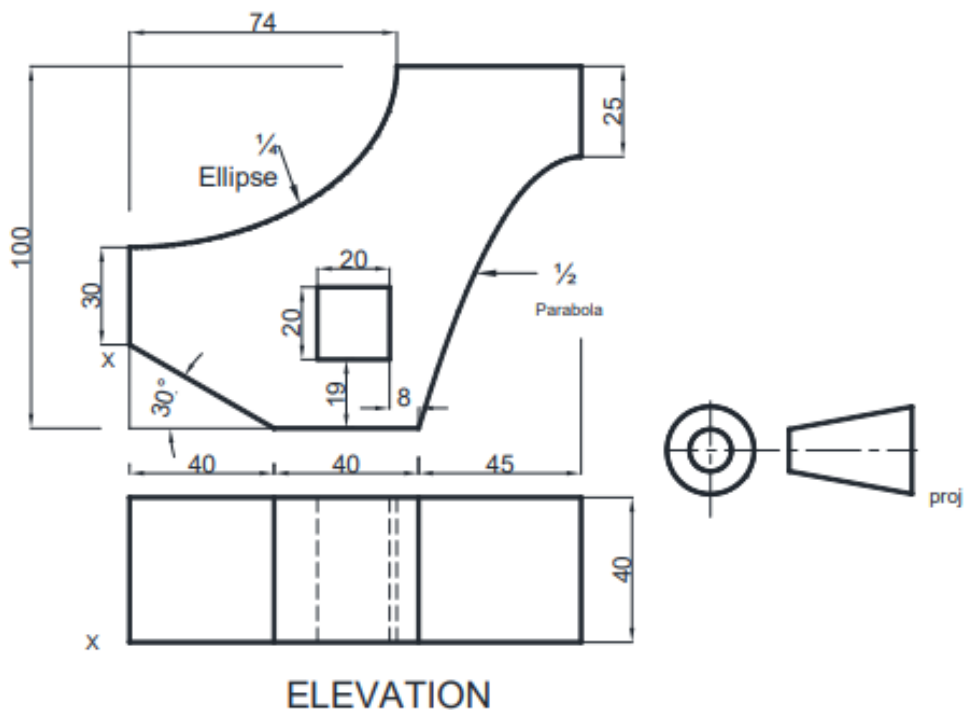
- 4) A right-hand square section helical chute has a lead of 70mm, internal diameter 60mm and outside diameter 100mm. draw full size $1\frac{1}{2}$ turns of the chute. . **20mks**

SECTION B

- 5) Views are given of a machined detail. Draw them and project a first auxiliary elevation on X_1Y_1 . From this view, project a second auxiliary plan on X_2Y_2 (20marks)



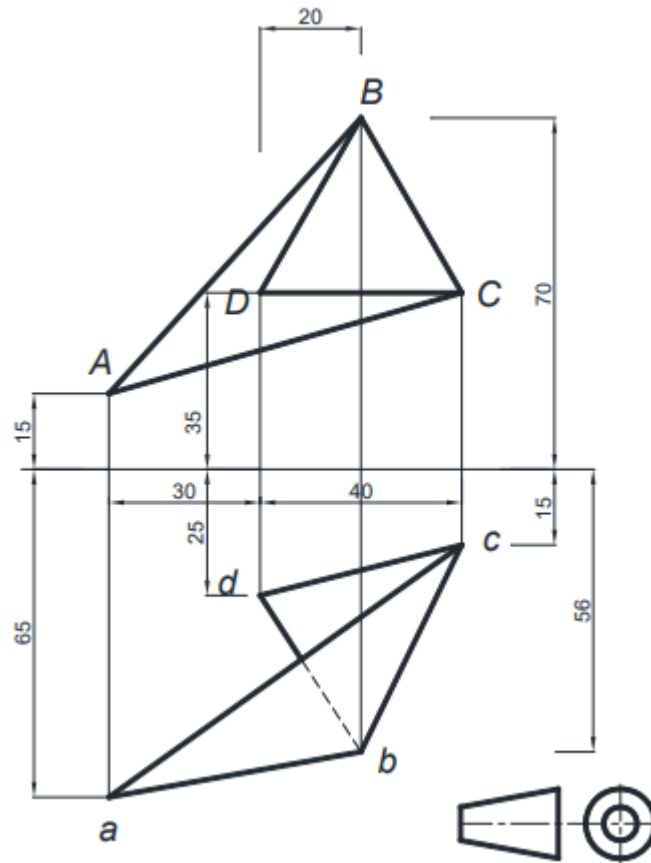
- 6) construct the isometric drawing of the casting shown in figure below. Making X the lowest point. (20marks)



7) The Figure below two views of a piece of folded plate.

Find the;

- a) True shape of the triangle ABC
- b) Dihedral angle of the folded plate and state it

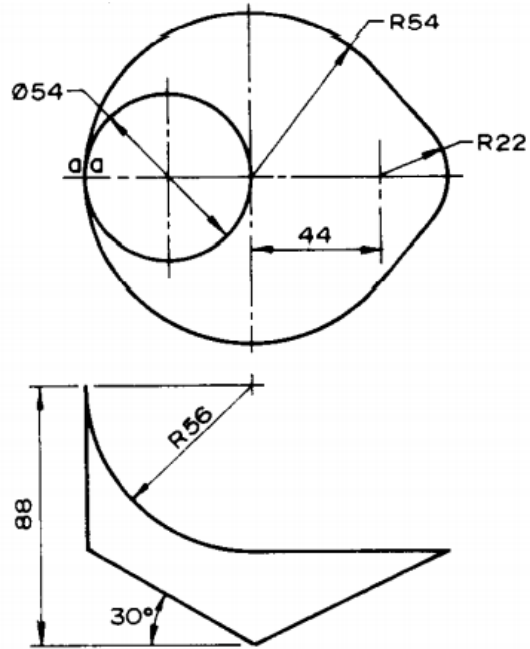


8) The figure below shows the elevation and plan.

- a) draw the given views.
- b) Produce the development of the pyramid with the seam at A-A.

04mks

16mks



BLESSINGS!!!!!!!!!!!!.....