

**P720/1
TECHNICAL
DRAWING**

**Paper 1
2026
3 hours**



UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Advanced Certificate of Education

TECHNICAL DRAWING

**Paper 1
(Geometrical Drawing)**

3 hours

INSTRUCTIONS TO CANDIDATES:

*This examination paper consists of two **compulsory** items.*

*Respond to **all** items.*

*Responses to each item should be on a separate page of the drawing paper size **A2** provided.*

1. Titus has been experiencing flooding around his house whenever it rains, especially near the gutter trap. Concerned about the recurring problem, he hired a plumber to inspect the drainage system. After inspecting the system, the plumber discovered that the gutter, the valley trap, and the piping system that channels water to the kitchen were damaged. To facilitate the replacement of the damaged parts, Titus provided the plumber with the original sketch of the elevation shown in figure 1. However, the sketch lacked important scaled technical drawings and details that clearly indicate the size, shape, and connections of the valley trap and the connecting pipes, which are necessary to guide the production and installation of the components.

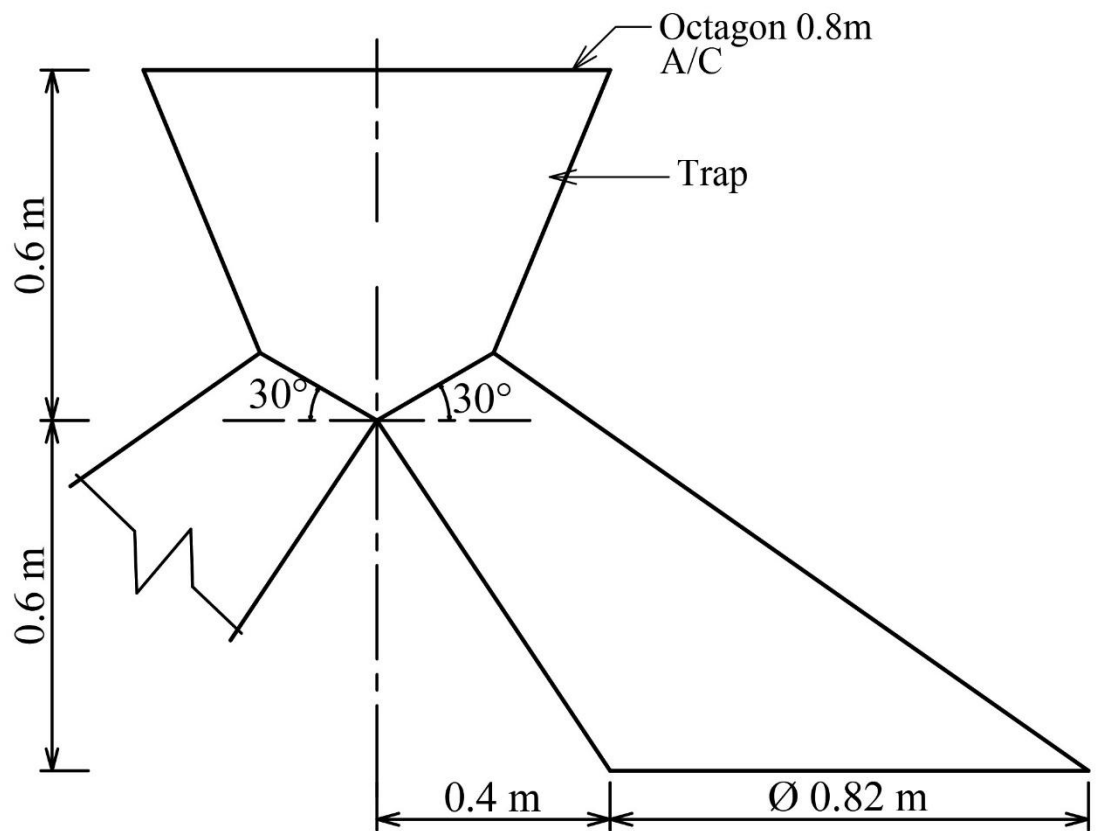


Fig. 1

Task:

Produce the required technical drawings to guide in production and installation.

2. During the construction of an extension at Debet Health Centre, the builders found it convenient to temporarily use an existing **12 m** span beam from a nearby building to support the building materials. The beam rests on two walls which are **9 m** apart. Several loads were then placed on the beam: **8** blocks positioned **1 m** from the end, a bag of cement at **2 m** from the blocks, **3** bags of lime at **8 m** from the cement and a Workman weighing **60 kg** standing at the extreme end, as illustrated in figure 2. However, a disagreement arose among the builders about whether the beam could safely sustain the loads placed along its length. Since none of the builders could perform a detailed graphical analysis, they were unable to make an informed decision about the safety of the beam.

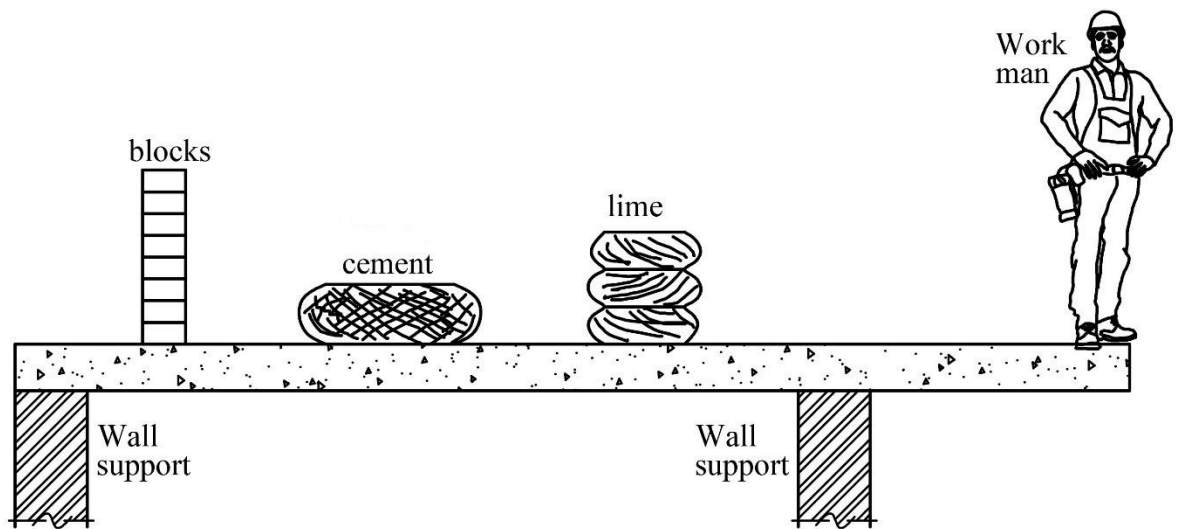


Fig. 2

Note:

A bag of cement and lime weighs **50kgs** and **15kgs** respectively.
Each block weighs **5kgs**.

Task:

Make the graphical analysis of the beam for the builders.