

P720/2
TECHNICAL
DRAWING
Paper 2
2026
3 hours



UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Advanced Certificate of Education

TECHNICAL DRAWING

Paper 2
(Mechanical Construction)

3 hours

INSTRUCTIONS TO CANDIDATES:

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

*Respond to **all** items.*

*Responses to Item **1** **must** be written in the answer booklet provided.*

*Responses to Item **2** **must** be done on the drawing paper size **A2** provided.*

1. A vendor rides his bicycle to the market daily. The bicycle features a cottered bottom bracket; a design common in Uganda for its reliability on marram roads. Recently, he noticed that when he pedals uphill, the left pedal suddenly drops, followed by a loud crash sound. He fears that the pedal will eventually breakdown completely. The local mechanic he contacted, discovered that the left crank arm shown in figure 1 is loose at the bottom bracket axle. He also observed that the axle cotter pin, which secures the crank arm to the axle, keeps loosening. A vendor needs an explanation to confirm what is wrong and how it can be permanently fixed and maintained to avoid disappointing reoccurrences.



Fig. 1 showing a crank arm

Task:

Assess the observations made by the Vendor and provide recommendations.

2. Juma recently noticed unusual vibrations coming from his grinding mill while in operation. When a technician inspected the machine, he found that parts of the belt roller support were worn out and recommended replacing them. Instead of ordering individual components, Juma decided to purchase the entire belt roller support but was told it was out of stock. Since he needed to keep working, Juma turned to a local fabricator who requested for precise drawings showing internal features and how the different parts fit together. Unfortunately, he only had the drawings on the user manual shown in figure 2 (on page 4) on which some parts were missing. He seeks help on the drawings needed.

Task:

Produce the required drawings Juma needs to present to the fabricator.

