

# KIBABII UNIVERSITY

**UNIVERSITY EXAMINATIONS  
2020/2021 ACADEMIC YEAR**

**FIRST YEAR SECOND SEMESTER  
MAIN EXAMINATIONS**

**FOR THE DEGREE OF BACHELOR OF SCIENCE IN RENEWABLE  
ENERGY AND BIO FUELS TECHNOLOGY**

**COURSE CODE:** REN 122

**COURSE TITLE:** ENGINEERING DRAWING II

**DURATION:** 2 HOURS

**DATE:** 17/05/2022

**TIME:** 9:00AM-11:00AM

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## INSTRUCTIONS TO CANDIDATES

- Answer **QUESTION ONE** (Compulsory) and any other **ONE** (1) Question.
- Indicate **answered questions** on the front cover.
- Start every question on a new page and make sure question's number is written on each page.

*This paper consists of 5 printed pages. Please Turn Over*



KIBU observes ZERO tolerance to examination cheating

**SECTION A : COMPULSORY**

**QUESTION ONE (20 MARKS)**

(a) Define the following terms applied in geometric drawing:

- (i) Ellipse
- (ii) Parabola

(5 marks)

(b) Draw a VERTICAL ellipse given the following: Major diameter = 80mm; Minor diameter = 50mm

(5 marks)

(c) Draw a parabola given that the focus is 20mm away from the directrix

(5 marks)

(e) With the aid of FREE HAND sketches, differentiate between Isometric and Oblique Engineering drawing projections

(5 marks)

**SECTION B: ANSWER ONE QUESTION FROM THIS SECTION**

**QUESTION TWO (20 MARKS)**

Figure 1 shows two cylinders A and B of different diameters meeting at right angles. Draw the following:

- (i) Views in third angle
- (ii) Pattern of cylinder A

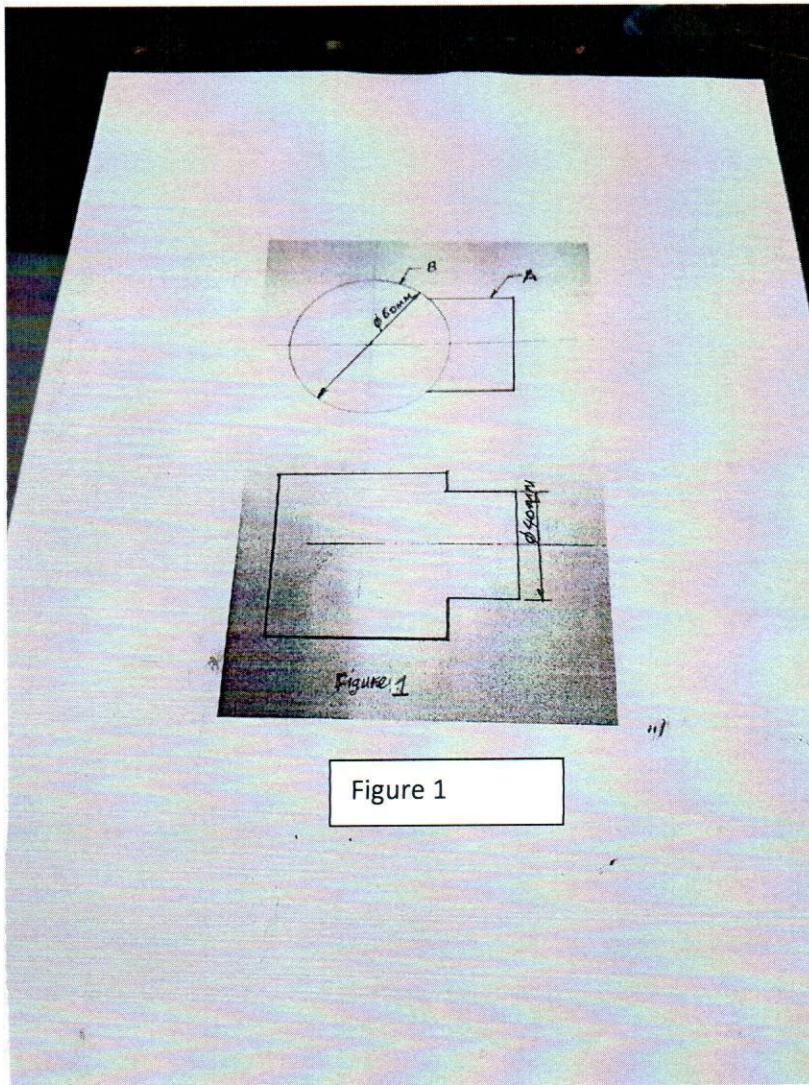


Figure 1

QUESTION THREE (20 MARKS)

From the oblique view given in figure 2, draw an isometric projection

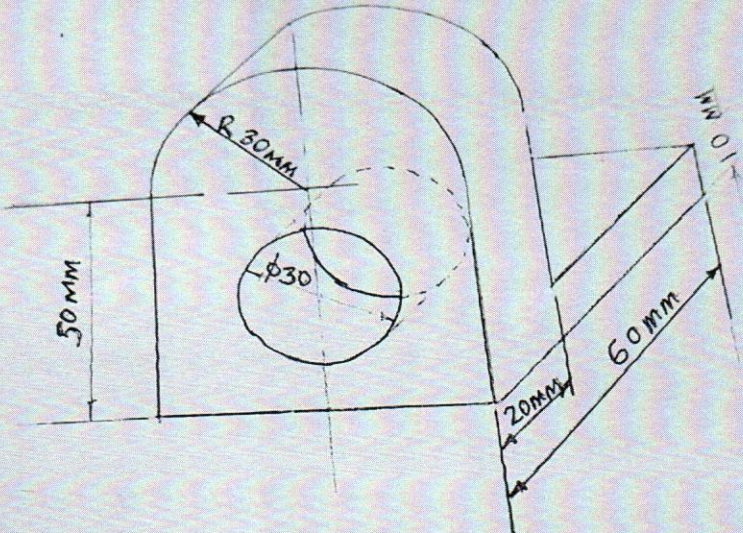


Figure 2

QUESTION FOUR (20 MARKS)

Draw the pattern of a square to circle transition piece shown in Figure 3.

