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**KIBABII UNIVERSITY**  
**UNIVERSITY EXAMINATIONS**  
**2017/2018 ACADEMIC YEAR**

**FIRST YEAR FIRST SEMESTER**

**MAIN EXAMINATIONS**

**FOR THE BACHELOR OF RENEWABLE ENERGY AND BIOFUELS TECHNOLOGY**

**COURSE CODE : PRD 161**

**COURSE TITLE : ENGINEERING DRAWING 1**

**DURATION : 2 HOURS**

**DATE : 16<sup>TH</sup> JANUARY 2018**

**TIME : 2 – 5PM**

**INSTRUCTIONS TO CANDIDATES**

Answer question 1 and any other two (2) questions

Time: 2 hours

QUESTION 1 (30 marks)

- a. Using A2 drawing paper, draw the border lines and title block indicating the title as EXAMINATION, SCALE, DATE, your REGISTRATION NUMBER, DRWG NO. and Your NAME.
- b. Draw the three orthographic views of Fig. 1 in First Angle projection and include at least six (6) dimensions.

QUESTION 2 (20 marks)

Without using a protractor, draw triangle ABC with  $AB = 120$  mm,  $BC = 80$  mm and angle  $ABC = 75^\circ$ . Construct an inscribed circle to touch the three sides of the triangle.

QUESTION 3 (20 marks)

A piece of wire 400 mm is bent to make a regular pentagon shape. Draw the finished pentagon to scale 1:1.

QUESTION 4 (20 marks)

Draw the three orthographic views of Fig. 2 in Third Angle projection and include at least six (6) dimensions.

QUESTION 5 (20 marks)

Copy the given sectional views of a pillow block as shown in Fig. 3. Draw the given views and insert all dimensions.

PRD 161 EXAM

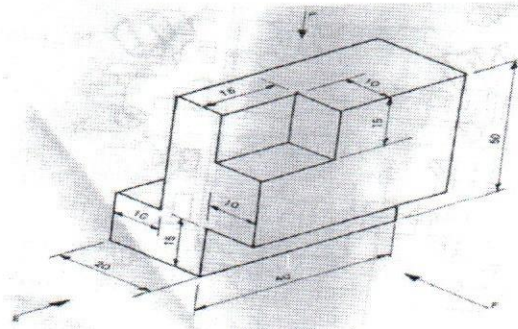


Fig. 1

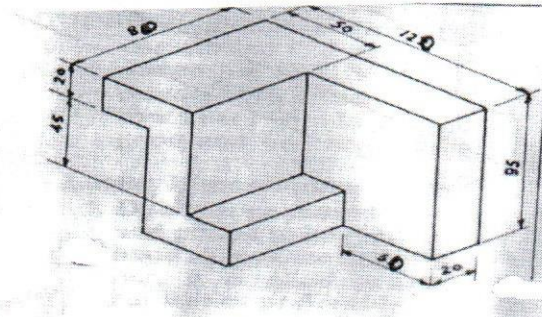


Fig. 2

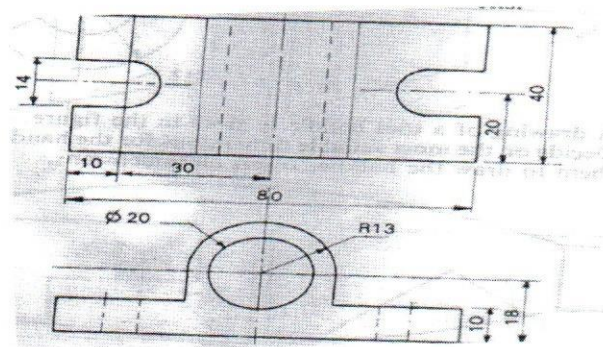


Fig 3