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KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS
2016/2017 ACADEMIC YEAR

FIRST YEAR SECOND SEMESTER
MAIN EXAMINATIONS

FOR THE DEGREE OF BACHELOR OF SCIENCE
IN RENEWABLE ENERGY AND BIOFUELS TECHNOLOGY
COURSE CODE: PRD 161

COURSE TITLE: ENGINEERING DRAWING I

DURATION: 2 HOURS

DATE: 15TH SEPTEMBER 2017 TIME: 11:30 – 1:30PM

INSTRUCTIONS TO CANDIDATES

- Answer **QUESTION ONE** (Compulsory) and any other three (3) Questions.
- 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 3 printed pages. Please Turn Over



- 1 a) Construct a hexagon given the length of one side as 20MM. (10mks)
b) Construct a triangle with perimeter measuring 160mm and sides in the ratio 3:5:6. (10mks)

- 2 a) Construct a square of side 50mm. Find the midpoints by construction and join up the points by straight lines to produce the second square. (10mks)
b) Construct a regular octagon on a base line 25mm long and draw the inscribed circles. (10mks)

- 3 Figure 1 shows an isometric projection of an assembly. Draw the following views in FIRST angle projection. (20MKS)
 - a) Front elevation
 - b) End elevation
 - c) Plan
 - d) Indicate six major dimensions
- 4) Figure below shows the views of a bracket. Construct an isometric drawing of the bracket with corner X as the lowest point. (20mks)
- 5 Figure below shows views of a casting drawn in first angle projection. Draw an isometric view of the casting with corner 'a' as the lowest point using free hand sketch. (20mks)

- 6 Figure below shows exhaust pipe gasket. Draw the full size showing clearly the constructions for obtaining the tangents joining the arcs. (20mks)