



MACHAKOS UNIVERSITY

University Examinations 2017/2018

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

FIRST YEAR FIRST SEMESTER EXAMINATION DIPLOMA IN ELECTRICAL
ENGINEERING

EED 103: ENGINEERING DRAWING 1

DATE: 19/12/2017

TIME: 8:30 – 10:30 AM

INSTRUCTIONS:

This paper consists of FIVE Questions. Answer Question ONE and ANY OTHER TWO questions.

SECTION A: (COMPULSORY) (30 MARKS)

1.
 - (a) Show five different types of a lines used in engineering drawing giving their purpose (10 marks)
 - (b) With neat sketches, show how the following are dimensioned: circles, holes , angles, curves (10 marks)
 - (c) Draw in vertical free hand lettering the following sentence taking size =8mm
MACHAKOS UNIVERSITY ELECTRICAL DEPARTMENT
(10marks)

SECTION B: ANSWER ANY OTHER TWO QUESTIONS

2.
 - (a) Construct an External line tangent between two circles of unequal diameter and 100 mm apart where circle A and B are 20mm and 40mm respectively (10 marks)
 - (b) Construct a triangle ABD circumscribed in a circle AB=70mm, BD=65mm and AD=45mm (10 marks)

3. A square prism with sides 30mm and height 120 mm rests centrally on a cylindrical block of 50mm diameter and 20mm thick. Draw the isometric view of the assembly. (20 marks)
- 4 (a) fig 2 shows views of a machined block drawn in 1st angle projection. Draw an isometric block corner x as the lowest point. (15 marks)

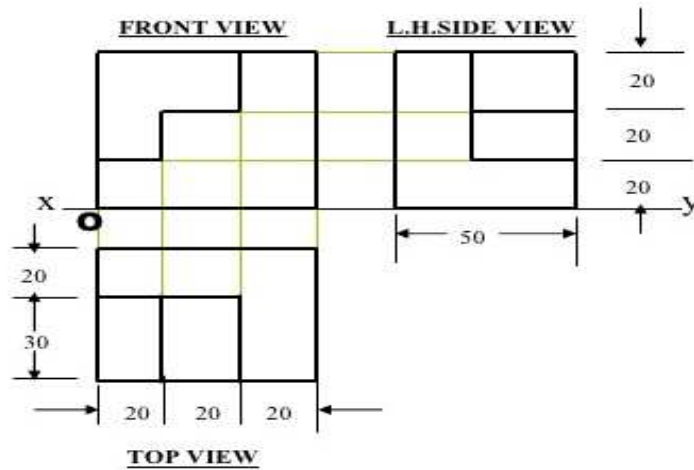


FIG.2.

- (b) Sketch the following symbols electrical symbols;
- i) diode
 - ii) resistor
 - iii) Npn transistor
 - iv) diode
 - v) transformer
- (5 marks)
5. a) Construct 45° 125° 90° 105° 75° angles (15 marks)
- b) Draw a 100mm line and divide it in the ratio of 3:8 (5 marks)