



MACHAKOS UNIVERSITY

University Examinations for 2016/2017

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

FIRST YEAR SECOND SEMESTER EXAMINATION FOR DIPLOMA IN

ELECTRICAL AND ELECTRONICS ENGINEERING

EED 110: ENGINEERING DRAWING II

DATE: 5/6/2017

TIME: 8:30 – 10:30 AM

INSTRUCTIONS

Answer Question ONE and any other TWO

1.
 - a) Engineering drawing is a means of communication used by all personnel concerned with the design and production of engineering items. Justify the foregoing statement. (4 marks)
 - b) Using sketches, show three ways of dimensioning a cycle (6 marks)
 - c) Figure 1 shows a pictorial view of a machine block. Draw the block in first angle orthographic projection and dimension it fully – ignore all the small holes. (20 marks)

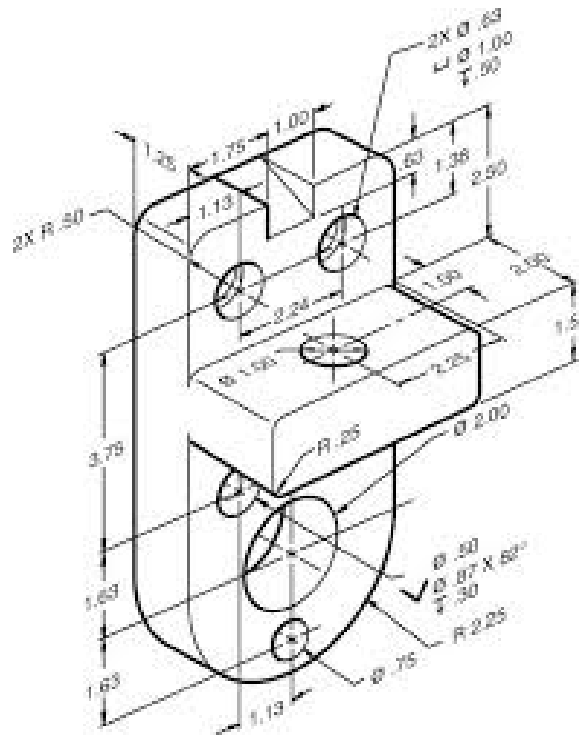


Figure 1

2.
 - a) Figure 2 shows the right cone cut obliquely and vertically. Copy the view and
 - i) Complete the plan
 - ii) Draw the surface development of the cone (12 marks)
 - b) Sketch the following electronic symbols:
 - i) Fuse
 - ii) Transformer
 - iii) Loud speaker
 - iv) Earth terminal (8 marks)
3.
 - a) Construct a triangle ABC given the perimeter is 145mm and the sides are in the ratio 2:3:6. Measure the angle, BAC (6 marks)
 - b) Construct a regular polygon, given the diameter of the escribed circle is 70mm (6 marks)
 - c) A and B are two points 100mm apart. With B as center, draw a circle 75 mm in diameter. From A draw two lines AC and AD which are tangential to the circle. AC = 150mm. From C construct another tangent to the circle to form a triangle ACD. Measure and state the lengths CD and AD and the angle CDA (8 marks)

4. a) Figure 3 shows an outline of two pulley wheels connected by a taught belt. Draw the figure FULL SIZE showing clearly the construction for obtaining the points of contact of the belt and the pulleys. (12 marks)
- b) Figure 4 shows three views of a shaped block. Draw the block in oblique projection taking side CD to be the lowest side. (8 marks)

5. a) Figure 5 shows an isometric view of a shaped block. Draw the block in first angle orthographic projection and dimension it fully. (10 marks)

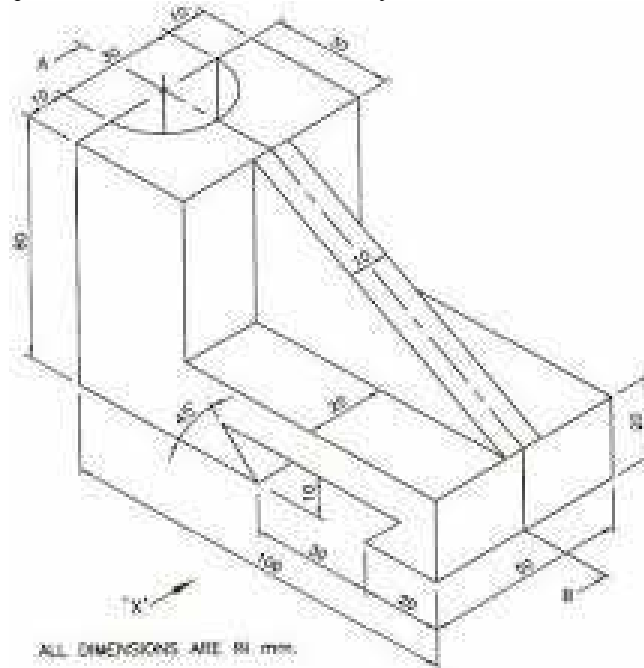


Figure 5

- b) Draw the following figure 6 in isometric projection taking corner Y to be the lowest point (10 marks)