



MACHAKOS UNIVERSITY COLLEGE

(A Constituent College of Kenyatta University)

University Examinations 2015/2016

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

FIRST SEMESTER EXAMINATION FOR DIPLOMA IN CIVIL ENGINEERING

BCECD 206: ENGINEERING DRAWING III

Date: 26/4/2016

Time: 2:00 – 4:00 PM

INSTRUCTIONS

This paper consists of FIVE questions

Answer question one and other two questions in this paper

QUESTION ONE (COMPULSORY)-30 MARKS

Fig 1(a) shows the floor plan of a car garage. To a scale of 1:50, draw and label section A-A using the following information.

- Height from floor to wall plate-2700mm
- Roof pitch-25°
- Foundation strip-(200* 600)
- Foundation walls-230mm thick
- Concrete floor slab-150mm thick
- Eaves distance from vertical wall-600mm
- Walling above D.P.C -150mm thick
- Hardcore filling -200mm thick
- King post truss to be used
- Roof covering material corrugated G.I sheets
- Wall plate -(100*50)mm

Assume any other information and shade the section with appropriate materials symbols. (20 marks)

Fig 1(b) shows the front elevation and an incomplete plan of a frustum of a cone.

Draw full size the following:-

- i) The complete section plan
- ii) The surface development of the truncated cone (10 marks)

QUESTION TWO

Fig 2 shows a hexagonal pyramid cut by a cutting plane x-x inclined at an angle of 30°

to the base. Draw the following views:-

- i) The complete sectional plan
- ii) The shape of the cut surface
- iii) Surface development of the frustum. (20 marks)

QUESTION THREE

Fig 3 shows truncated hexagonal pyramid.

Draw full size of the following:-

- i) Sectional plan.
- ii) An auxiliary elevation from direction 'H' (20 marks)

QUESTION FOUR

Fig 4 shows a right solid cylinder cut by a cutting plane y-y at an angle of 45° to the base .Draw;-

- i) The complete sectional plan
- ii) The true shape of the cut surface
- iii) The development of the frustrum.

QUESTION FIVE

Fig 5 shows two cylinders of unequal diameters intersecting each other at an angle of 30° to the base.

Draw the following views;-

- i) Complete plan
- ii) Curve of the intersection (20 marks)