TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

DIPLOMA IN BUILDING & CIVIL ENGINEERING (DBCE)

EBC 2104: ENGINEERING DRAWING II

**END OF SEMESTER EXAMINATION
SERIES:** APRIL 2015
TIME ALLOWED: 2 HOURS

Instructions to Candidates:
You should have the following for this examination
- *Answer Booklet*
- *Drawing paper size A1*
This paper consists of **FIVE** questions. Answer any **THREE** questions of the **FIVE** questions

Maximum marks for each part of a question are as shown
Use neat, large and well labeled diagrams where required
This paper consists of **TWO** printed pages

Question One

Figure 1 shows the two views of a right truncated pyramid in 'first angle'. Draw the following:

- **(i)** The given front view
- **(ii)** A complete plan
- **(iii)** A first auxiliary plan view of the pyramid as seen in the view of direction 'S'   **(20 marks)**

Question Two

Shown in figure 2 are the in-complete plan and front elevation of a cone intersecting a cylinder. Draw the complete views showing the curves of interpenetration   **(20 marks)**

Question Three

a) Figure 3 shows a pictorial drawing of a bearing block. Draw free hand sketches of the following views of the block in first angle orthographic projection:
   - (i) Plan view in direction 'B'
   - (ii) Front elevation in direction 'A'
   - (iii)   End view in direction 'C'   **(10 marks)**

b) Shown in figure 4 are the three view of an object in 'first angle' Draw a free hand sketch of an isometric drawing of the object   **(10 marks)**

Question Four

Referring to the drawing shown in figure 5, draw the following elevations;

- **(i)** Southern elevation
- **(ii)** Eastern elevation   **(20 marks)**

Question Five

a) Draw to a scale of 1:10 a ridge detail of the roof for the house shown in figure 5 to show the following:
   - Ridge cap
   - G.C.I roof covering
   - Truss members and their connection details
     Assume the size of the member and any other information not given   **(8 marks)**

b) The following information refers to the staircase shown in figure 5.
   - Floor to floor height = 3000mm
   - Total going = 2250mm
   - Rise between landings = 1500m
   - Total rise = 3000mm
   - Width of landing = 900mm
   - Landing slab and floor slab thickness = 150mm
   - 100 x 50mm thick moulded hardwood handrail on 50 x 50 rhs metal posts

- 20mm thick terrazzo floor finish

Assuming any other information not given draw a vertical section through the stair to a scale of 1:10 and between grand floor to first floor **(12 marks)**