



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2009/2010

FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE (ENVIRONMENTAL HEALTH)

HEH 207: TECHNICAL DESIGNS AND DRAWING

DATE: Wednesday, 23rd December, 2009

TIME: 2.00 p.m. – 4.00 p.m.

INSTRUCTIONS:

This paper consists of **TWO** Sections A and B.

SECTION A

1. a) Illustrate any six types of lines used in technical drawing citing the application of each. (3 marks)
 b) Arrange the following grades of pencil leads in ascending order of hardness. 2H, B, F, HB (1 mark)
2. With aid of labeled sketches, outline the procedure of setting up a drawing paper on a drawing surface. (4 marks)
3. Briefly discuss basic principles of good freehand sketching. (4 marks)
4. a) Distinguish between FIRST angle and THIRD angle orthographic projections. (2 marks)
 b) Using upper case letters, write the sentence, 'The quick brown fox jumped over the lazy dogs'. (2 marks)

5. Outline in sequence, the procedure of drawing the isometric view of a cube.
(4 marks)

SECTION B

Answer question **ONE** and any other **TWO** questions from this section.

1.
 - a) Explain the Kenya Building Code regulations for approval of building plans.
(4 marks)
 - b) Figure 1 shows the isometric view of an engineering component. To a scale of 1:2, draw the plan, front elevation and side elevations in FIRST angle orthographic projection.
(16 marks)
2. Figure 2 shows the floor plan of a small building. To a scale of 1:100 draw the front, side and rear elevations. Refer to the provided specifications.
(15 marks)
3. Figure 3 shows the orthographic views of an object in THIRD angle projection. To scale of 1:1, draw the isometric view of the object with L.P. as the lowest point.
(15 marks)
4. To a scale of 1:1 draw the plan, front elevation and side elevations of the object show in figure 4 in THIRD angle orthographic projection.
(15 marks)
5. Approval of building drawings in a mandatory aspect of development control. Discuss how this procedure is carried out within a fully established Municipal Council.
(15 marks)