

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**FIRST YEAR EXAMINATION FOR THE AWARD OF DEGREE OF
BACHELOR OF SCIENCE IN PUBLIC HEALTH**

PUHE 171: TECHNICAL DESIGNS AND DRAWING

STREAMS: BSC. (PUHE)

TIME: 2 HOURS

DAY/DATE: WEDNESDAY 24/3/2021

11.30 AM – 1.30 PM

INSTRUCTIONS

- Answer question ONE and any other TWO questions
- Do not write on the question paper

QUESTION ONE

- (a) List three applications of technical drawings. [3 Marks]
- (b) List 2 elements of dimensioning. [2 Marks]
- (c) What is orthographic projection? [1 Mark]
- (d) Construct a plain scale to show meters when 1 centimeter represents 5 meters and long enough to measure 50 meters. Find the R.F and mark on your scale a distance o 36 meters. [4 Marks]
- (e) List 5 types of scales. [5 Marks]
- (f) Name some common drawing instruments and their used. [4 Marks]
- (g) What is Computer Aided Design /Drafting (CAD) [1 Mark]
- (h) For a building of measurements 40 m by 25m, design a piping layout that uses a series of welded and flanged joints. Draw the system using double-line symbols. [10 Marks]

SECTION B- ANSWER ANY TWO QUESTIONS

QUESTION TWO (20 MARKS)

- a) Explain 6 by-laws to buildings and sanitation according to the public health CAP 242. [12 Marks]
- b) State four rules of dimension lines? [4 Marks]
- c) With the help of a diagram, show the generic CAD process. [4 Marks]

QUESTION THREE (20 MARKS)

- a) Explain the passing or rejection of plans and retention of plans according to the public health CAP 242. [12 Marks]
- b) Name the geometric nomenclatures and draw a qualitative shape of them. [4 Marks]
- c) Explain 4 major benefits of CAD. [4 Marks]

QUESTION FOUR (20 MARKS)

- a) Explain the construction and regulation of buildings used for storage of foodstuffs according to the public health CAP 242. [12 Marks]
 - b) Name and explain 4 solid primitives used on Auto CAD? [8 Marks]
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