



TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Engineering and Technology
Department of Mechanical & Automotive Engineering
UNIVERSITY EXAMINATION FOR:
Diploma in Mechanical Engineering (Plant Option, Y3S2)
EPL 2304 : Plant Engineering Drawing & Design II (Paper 2)
SPECIAL/SUPPLEMENTARY EXAMINATION
SERIES: SEPTEMBER 2018
TIME: 2 HOURS
DATE: Sep 2018

Instruction to Candidates:

You should have the following for this examination

- *Examination Pass & Student ID Card*
- *Drawing Paper Size A2 & Drawing Instruments*
- *Non-Programmable scientific calculator*

This paper consists of **FIVE** questions. Attempt any **THREE** questions.

Maximum marks for each part of a question are as shown.

Do not write on the question paper.

Question ONE

a) Draw a two-Line ring main diagram of compressed air supply system to following pneumatic units. **(9 marks)**

b) Draw a typical layout of a double acting, two stage reciprocating compressor. **(5 marks)**

Question TWO

Draw Lay out plan for a sugar manufacturing process and indicate all the services for the process. **(20 marks)**

Question THREE

a) Draw a one -line diagram of Hot and Cold water system for a Multi storey building. **(12 marks)**

b) Draw an electrical wiring circuit for a domestic consumer premises. **(8 marks)**

Question FOUR

- a) Draw a hydraulic system circuit using graphical symbols representation to incorporate the following. **(12 marks)**
- b) Draw a one-line diagram of a sodium Zeolite water treatment system. **(8 marks)**

Question FIVE

Draw a plant layout for cement manufacturing using the WET process to include:

- i. All the services
- ii. Product line
- iii. Colour coding

(20 marks)