TECHNICAL UNIVERSITY OF MOMBASA

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF ARCHITECTURE & BUILT ENVIRONMENT

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN ARCHITECTURE

DIPLOMA IN QUANTITY SURVEYING

EAR 2106: **BUILDING TECHNOLOGY I**

END OF SEMESTER EXAMINATION

YEAR ONE SEMESTER II

SERIES: APRIL 2022

TIME: 2 HOURS

DATE: Pick DateAPRIL 2022

Instructions to Candidates
You should have the following for this examination
-Answer Booklet, examination pass and student ID
This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions.
Do not write on the question paper.

QUESTION ONE (30 MARKS)-COMPULSORY

a) State FOUR purposes for undertaking soil investigations before construction of a building is done. (4 marks)
b) What are the SEVEN typical site security provisions that need to be put in place when undertaking a building construction project? (7 marks)
c) State FIVE factors that the allocation of the actual position on site for storage of materials depend on. (5 marks)
d) With the aid of sketches explain the THREE basic arrangements of timber supports used for foundation trench excavation. (9 marks)
e) Define the following terms: Scaffolding, Demolition, Foundation, Floor and Roof. (5 marks)

QUESTION TWO (15 MARKS)

a) Identify and explain SIX functional requirements of roof. (12 marks)
b) What is the difference between a load bearing wall and a non-load bearing wall? (3 marks)

QUESTION THREE (15 MARKS)

a) Outline FIVE reasons that are the primary cause of accidents due to failure of scaffolding in construction of buildings. (10 marks)

b) Explain FIVE considerations that the design of a floor system depends upon. (5 marks)

QUESTION FOUR (15 MARKS)

a) Identify and explain SIX types of foundations and where they are used for construction of buildings. (12 marks)

b) Explain the difference between a flat and a pitched roof. (3 marks)

QUESTION FIVE (15 MARKS)

a) What is the prime function of a wall? (3 marks)
b) Identify and explain SIX different types of walls. (12 marks)