



MACHAKOS UNIVERSITY
SCHOOL OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF BUILDING & CIVIL ENGINEERING
FIRST YEAR FIRST TERM EXAMINATION FOR
CERTIFICATE IN BUILDING TECHNOLOGY
MASONRY THEORY

DATE: 4/6/2021

TIME: 2:30 – 5:30 PM

INSTRUCTIONS:

Answer the following five questions.

1. (a) State five safety precautions to be observed in a masonry workshop. (10 marks)
- (b) identify four safety wear to be used for personal safety in the workshop. (10 marks)
2. sketch the following masonry tools and state one use of each.
 - i) brick trowel
 - ii) wooden float
 - iii) spirit level
 - iv) builder's square.
 - v) plumb bob. (20 marks)
3. With the aid of a labeled sketch, explain the use of a gauging rod in wall construction. (20 marks)
4. a) Explain the term bonding as used in walls. (5 marks)
- b) state the materials used in making mortar. (6 marks)
- c) Explain the procedure for setting and constructing two courses of a one brick thick wall. The first course is 5bricks and 4bricks in length. (9 marks)
5. (a) sketch a brick and name five of its parts. (10 marks)
- (b) with the aid of a sketch, illustrate the layout plan of 1st and 2nd courses of a one brick thick wall in English bond (10 marks)