



**MASINDE MULIRO UNIVERSITY OF SCIENCE AND
TECHNOLOGY
(MMUST)**

MAIN CAMPUS

UNIVERSITY EXAMINATIONS 2022/2023 ACADEMIC YEAR

THIRD YEAR SECOND SEMESTER EXAMINATIONS

**FOR THE DEGREE
OF**

BACHELOR OF TECHNOLOGY IN BUILDING CONSTRUCTION

COURSE CODE: BTB 362

COURSE TITLE: OCCUPATIONAL SAFETY AND HEALTH

DATE: 26TH APRIL 2023

TIME: 8- 10 A.M

INSTRUCTIONS:

1. This paper contains **FOUR** questions
2. **Question ONE (1) is Compulsory**
3. **Attempt a total of THREE questions in this booklet.**
4. Marks for each question are indicated in the parenthesis.
5. Examination duration is **2 Hours**

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 2 Printed Pages. Please Turn Over.

Question 1 **COMPULSORY** **(30 Marks)**

- (a) Describe any FIVE indirect costs incurred due to the occurrence of accidents on a construction site (5 Marks)
- (b) Obingo has been hired as the safety officer for the ongoing TVET & Engineering Complex construction project. Outline the responsibilities expected of Obingo as the new safety officer (5 Marks)
- (c) Gin or pulley wheels are a common and inexpensive way of lifting small loads over a limited distance. State the measures considered in ensuring safety to the workers (5 Marks)
- (d) Outline the main causes of accidents resulting from excavation works (5 Marks)
- (e) Explain the use of Personal Protective Equipment (PPE) in construction industry giving their advantages and disadvantages (10 Marks)

Question 2 **(20 Marks)**

- (a) Dennis has been contracted to carry out painting works by MMUST. He intends to use ladders for the work but seeks knowledge on the type of ladders and their limitations. Advise Dennis. (10 Marks)
- (b) Marvin, a contractor has to perform repair works on a tall structure situated along a very busy street in Nakuru city. Discuss the appropriate type of scaffold Marvin would prefer for the repairs. (10 Marks)

Question 3 **(20 Marks)**

- (a) State the principal causes of accidents during demolition (3 Marks)
- (b) Describe the process employed in the demolition of a building (7 Marks)
- (c) Outline the hazards associated with confined spaces and give the precautions considered in minimizing accidents (10 Marks)

Question 4 **(20 Marks)**

- (a) Define ergonomics (2 Marks)
- (b) State three basic considerations in selecting, using and maintaining hand tools. (3 Marks)
- (c) What are the characteristics of a good crawling board or roof ladder? (5 Marks)
- (d) ABC Insurance Company declined to pay XYZ Construction Company as a compensation of two workers who sustained serious injuries during excavation of foundation works of a Highrise building. Outline the possible reasons which may have prompted the site assessment team from the insurance company to decline payment of the compensation (5 Marks)
- (e) As a worker you can make a major contribution to safe working conditions on site by paying attention to tidiness. Outline the possible steps to achieve this. (5 Marks)