



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

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

2019/2020 ACADEMIC YEAR

SPECIAL / SUPPLEMENTARY EXAMINATION

FOURTH YEAR SEMESTER TWO EXAMINATIONS

**FOR THE DEGREE
OF
EDUCATION TECHNOLOGY IN CIVIL AND STRUCTURAL
ENGINEERING**

COURSE CODE: TEB 464

COURSE TITLE: QUANTITY SURVEYING II

DATE: FRIDAY 22ND JANUARY 2021 TIME: 11.00 AM – 1.00 PM

INSTRUCTIONS:

1. This paper consists of **FOUR** questions.
2. **ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS.**
3. Marks for each question are indicated in the parenthesis.

MMUST observes **ZERO** tolerance to examination cheating

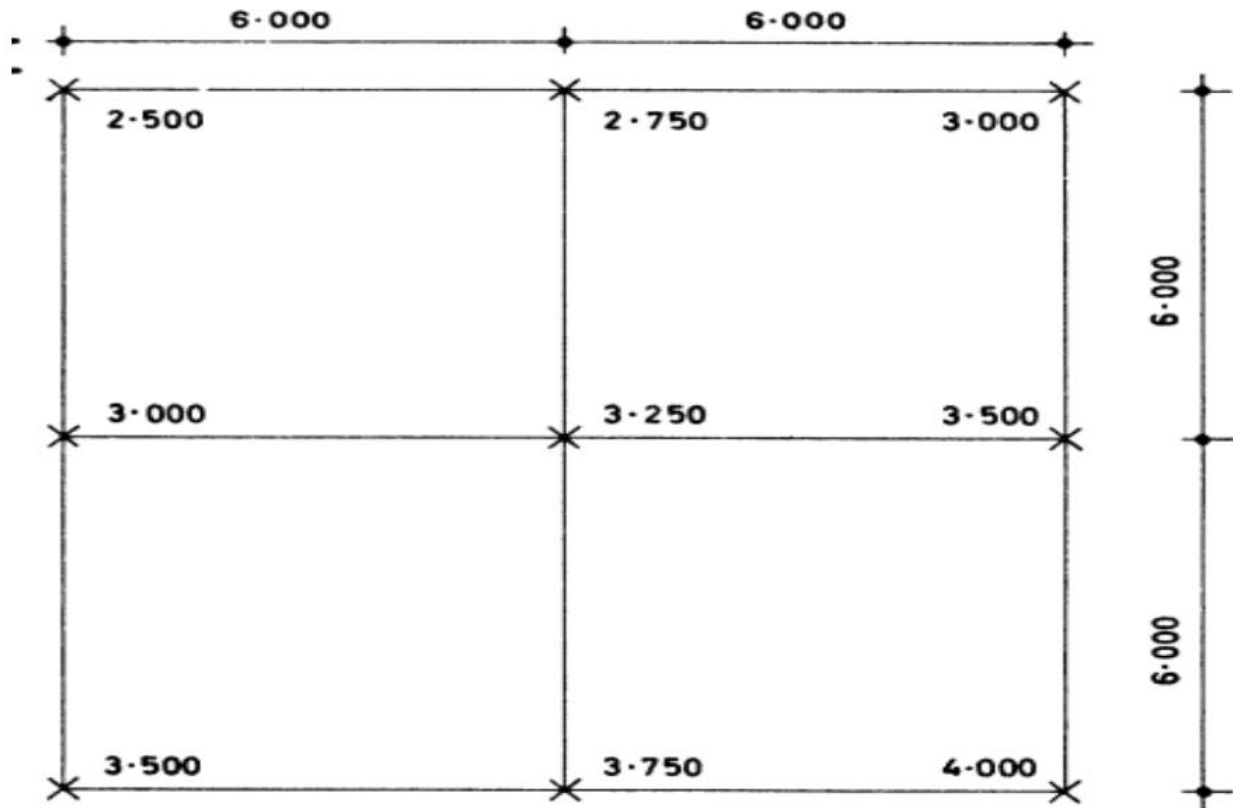
This Paper Consists of 4 Printed Pages. Please Turn Over.

Question ONE (30 Marks)

- a) Explain the role of measurement as used by the following construction professionals:
- i. Project manager
 - ii. Quantity surveyor
 - iii. Contractor **[4 Marks]**
- b) Highlight any **TWO** importance of specification document in civil works. **[2 Marks]**
- c) Highlight any **FOUR** functions of Standard Method of Measurement as applied in “Taking – Off” of quantities. **[4 Marks]**
- d) Using appropriate examples, state and explain the **FOUR** principal units of measurement as used in the Standard Methods of Measurement. **[8 Marks]**
- e) Highlight **FIVE** considerations to be undertaken by a contractor before deciding on an outright purchase of specific items of plant for the business. **[5 Marks]**
- f) Discuss how the following factors are involved in the forecasting of future pricing levels of engineering commodity.
- i. Past Economic Performance
 - ii. Current Global Conditions
 - iii. Rate of Inflation **[3 Marks]**
- g) Briefly describe how the following factors influence the costs of buildings.
- i. Electrical installations
 - ii. Size of building
 - iii. Circulation space
 - iv. Lifts **[4 Marks]**

Question TWO (20 marks)

- a) The figure below illustrates a sloping site excavation approach used for the determination of excavation volume. The excavation is required down to a level of 2.20 m, including excavating vegetable soil to a depth of 175 mm and no fill required. Determine the average adjusted depth to be entered in the dimension paper. **[15 Marks]**



- b) Present the dimensions of the above site in a dimension paper, giving the description of items involved. **[5 Marks]**

Question THREE (20 marks)

- a) Discuss **FOUR** ways which a contractor can employ to acquire a mechanical plant for his construction works. **[8 Marks]**
- b) **Mason Ltd** purchased a machinery costing Kshs. 60,000,000 for a specific project and expected useful life of 10 years. Given the rate of depreciation as 20%, determine the value of the plant at the end of 10 years using **written down value method**. **[8 Marks]**
- c) Highlight **TWO** advantages and two disadvantages of buying a mechanical plant. **[4 Marks]**

Question FOUR (20 Marks)

- a) Discuss any **THREE** important components of Specifications contents. **[6 Marks]**
- b) Discuss **FOUR** basic principles of writing Specifications. **[8 Marks]**
- c) Discuss **THREE** components of Technical Requirements of Specifications. **[6 Marks]**