



MACHAKOS UNIVERSITY

University Examination 2018/2019

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

THIRD YEAR SECOND SEMESTER EXAMINATION FOR

DIPLOMA IN CIVIL ENGINEERING

BCECD 317: MEASUREMENT, ESTIMATING AND COSTING

DATE:

TIME:

INSTRUCTIONS

- i) Question one is compulsory and carries 30mks
- ii) Answer Any other Two questions

1.
 - a) Give three comparisons between the (Smm) and the (CEsmm) (6 marks)
 - b) List five roles of a quantity surveyor (5 marks)
 - c) Describe two uses of bill of quantities in measurement (7 marks)
 - d) Explain three causes of variation of valuation (6 marks)
 - e) Define the following as used in measurement
 - i) Preamble
 - ii) Contingency sum
 - iii) Provisional sums
 - iv) Deemed to be included items
 - v) Prime cost sums
2.
 - a) Illustrate a dimension paper and describe all its components (6 marks)
 - b) Explain five roles of a nominated supplier (10 marks)
 - c) Give four tendering documents for construction works (4 marks)
3.
 - a) Explain four reasons for preparing a bill of quantities before construction works can commence (8 marks)
 - b) Describe two types of bill of quantities (4 marks)
 - c) Explain four roles of an estimator in construction works (8 marks)

4. Illustrate the following as in measurement
- i) Dotting –on
 - ii) Grouping dimensions
 - iii) Timesing
 - iv) Ampersand and ditto
 - v) Abbreviations
 - vi) Deductions
 - viii) Entering dimensions according to order (20 marks)
5. a) Explain three principles involved in taking –off (3 marks)
- b) Excavate trench commencing from strip level 10x5mx1.5 depth. Book the above descriptions in a dimension paper. (9 marks)
- c) Describe any three types of contracts. (6 marks)
- d) Differentiate between a main contractor and a sub-contractor. (2 marks)