



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

UNIVERSITY EXAMINATION FOR:

CERTIFICATE IN BUILDING

EBC1202 : CERTIFICATE IN QUANTITY SURVEYING 1I

END OF SEMESTER EXAMINATION

SERIES: AUGUST 2019

TIME: 2 HOURS

DATE: 2 AUGUST 2019

Instructions to Candidates

You should have the following for this examination

-Answer Booklet,

-examination pass

-student ID

- Scientific Calculator

This paper consists of five questions.

Attempt any THREE questions.

Do not write on the question paper.

QUESTION ONE (20 Marks)

(a) Briefly explain the procedure of preparing bill of quantities by 'cut and shuffle method'

(14 Marks)

(b) Define the following as used in method related charge.

(i) method related charges

(ii) Time related charges

(iii) Fixed charge

(14 Marks)

QUESTION TWO (20 Marks)

Take off quantities for a man –hole shown in figure **No.1**

Man-hole schedule

Internal Size	Cover level	Invert level	Invert depth	Step irons
1200x750	100.00	98.90	1.10	4

QUESTION THREE (20 Marks)

Take off quantities for the internal window shown in figure **No.2**

QUESTION FOUR (20 Marks)

Take off quantities for walling above D.P.C in figure **No.3**

QUESTION FIVE (20 Marks)

Take of quantities for the measurement of site clearance work shown in

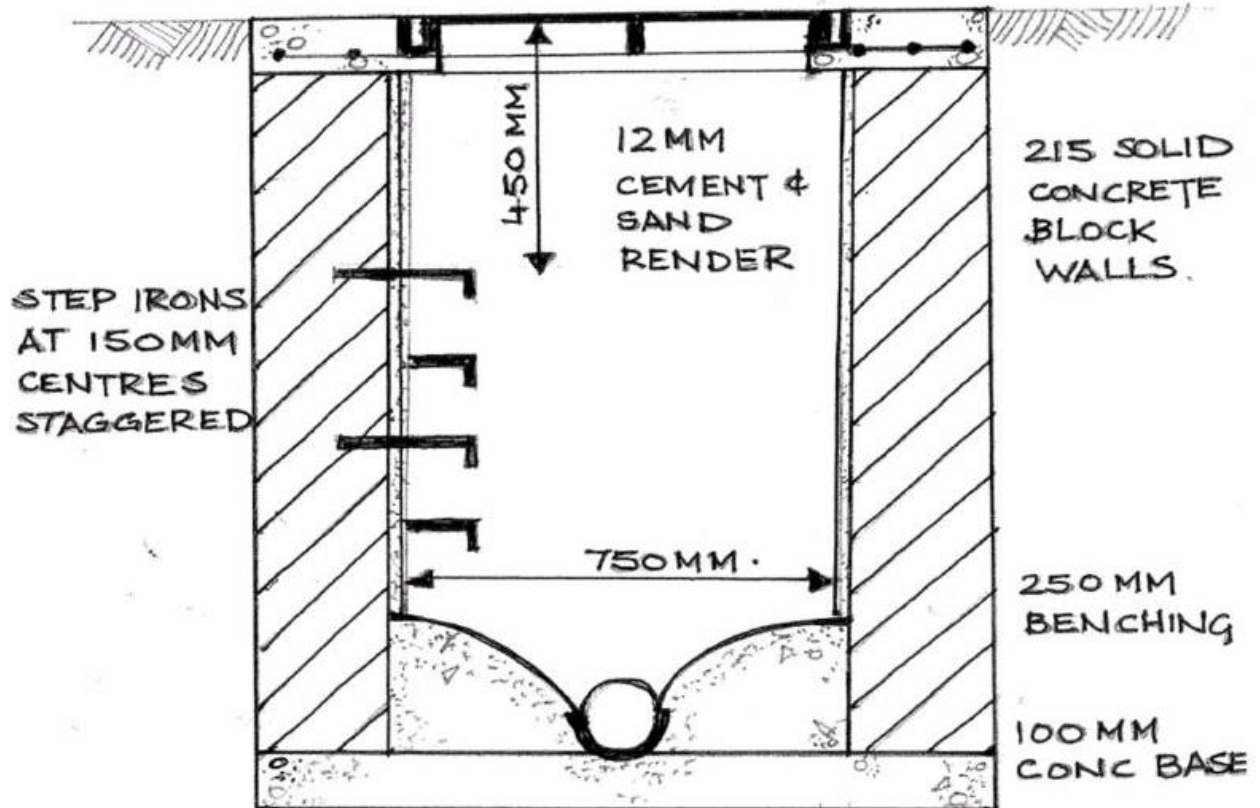
figure **No. 4** using CESMM

Manholes

A 393 MESH

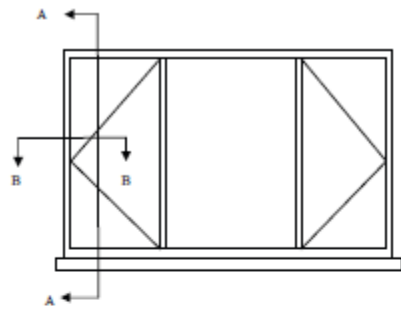
BELOW GROUND DRAINAGE

COVER & FRAME
100 MM CONC. COVER



TYPICAL MANHOLE
DETAIL

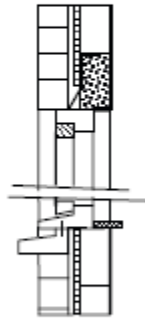
DRAWING 1



1400 × 780 mm soft
window of Sarnacel
Painted finish
Double glazed
Outer skin in facing
cavity, 100 mm black
inner skin

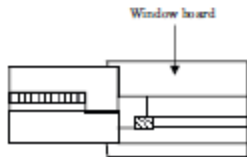
Section A-A

13 mm plaster
100 × 150 mm precast concrete lintel
Steel lintel and cavity tray
50 mm rigid insulation



Rectangular Sill

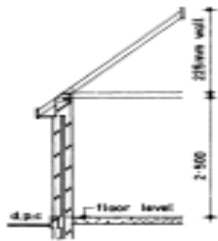
25 × 100 mm wrought softwood window
board
Water bar
150 × 100 mm precast concrete sub-sill
Damp proof courses



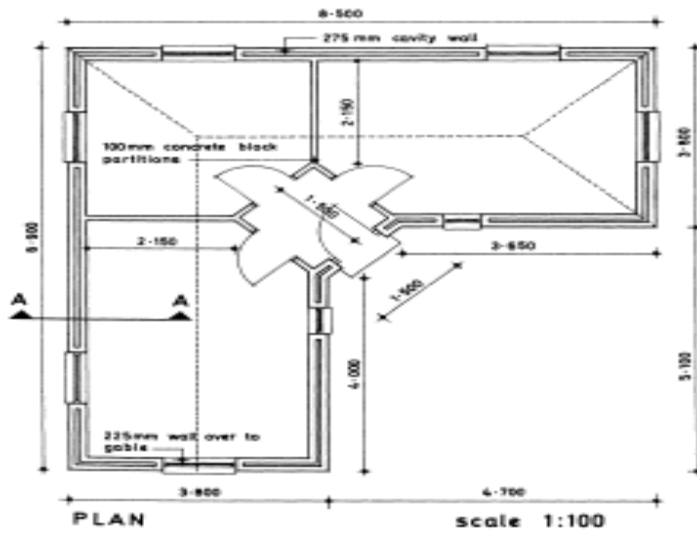
Section B-B

Detail at jamb. Cavity closed
with blockwork and vertical
damp proof courses

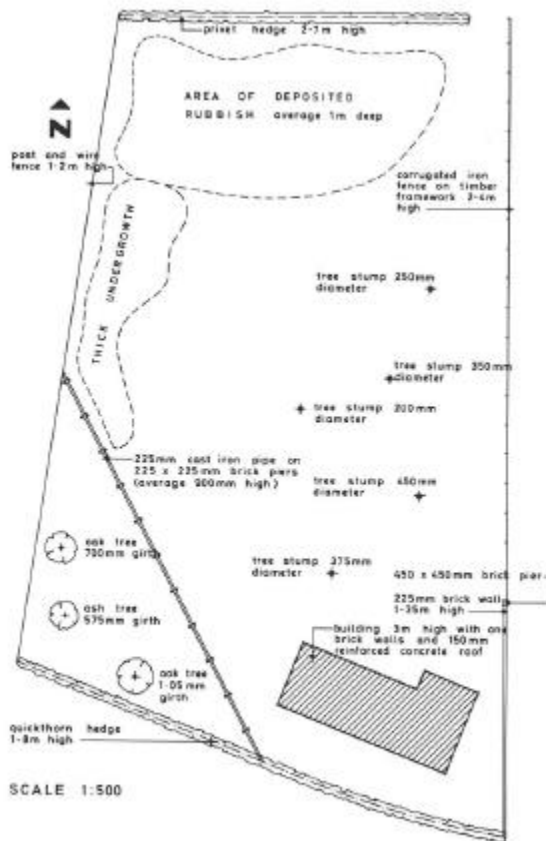
DRAWING NO 2



SECTION A-A



DRAWING 3



DRAWING 4