



**TECHNICAL UNIVERSITY OF MOMBASA**

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**FACULTY OF ENGINEERING AND TECHNOLOGY**

**DEPARTMENT OF BUILDING AND CIVIL ENGINEERING**

**DIPLOMA IN CIVIL ENGINEERING**

**EBC 2305: MEASUREMENT OF BUILDING WORKS**

**END OF SEMESTER EXAMINATION**

**SERIES –APRIL 2016**

**TIME: 2 HOURS**

**INSTRUCTIONS TO CANDIDATES**

You should have the following for this examination

- Answer booklet
- Pocket calculator
- Standard method of measurement for building works

This paper consists of **FIVE** questions

Answer any **THREE** questions

Maximum marks for each part of a question are as shown



## QUESTION ONE

Take off all quantities for the substructures works shown in drawing no 01. **(20marks)**

## QUESTION TWO

Take off all quantities for the flush door shown in drawing no 02 including adjustments  
**(20marks)**

## QUESTION THREE

Take off all quantities for the flat roof shown in drawing no 03 including rain water goods.  
**(20marks)**

## QUESTION FOUR

a) Outline FOUR uses of a bill of quantities **(6marks)**

b) Describe the following types of Bills of quantities

- i) Elemental
- ii) Traditional
- iii) Operational **(6marks)**

c) With suitable illustrations explain what is meant by running through dimension  
**(3marks)**

d) Describe the uses of a dimension paper **(5marks)**

## QUESTION FIVE

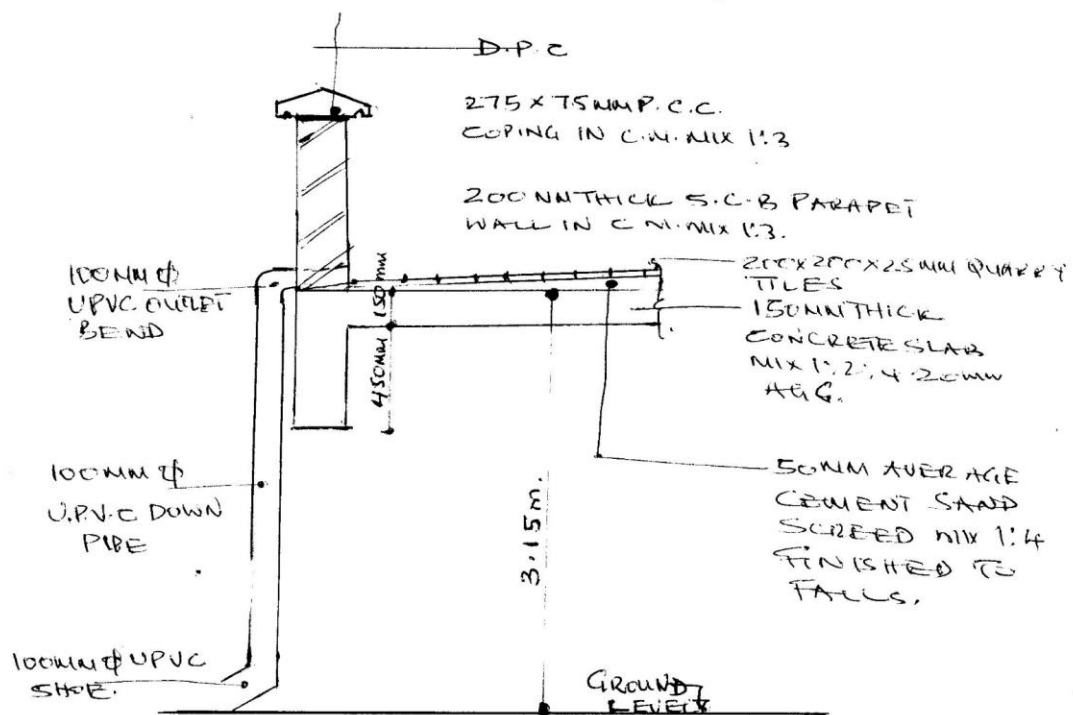
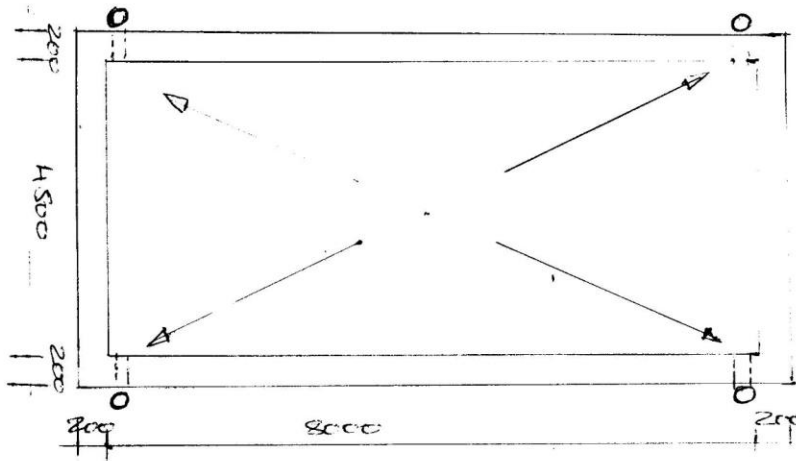
i) Outline the term “variations” **(2marks)**

ii) Outline any ‘four’ processes of valuing variations **(6marks)**

iii) Describe any FOUR contract documents used in building contracts. **(12marks)**



# FLAT CONCRETE ROOF

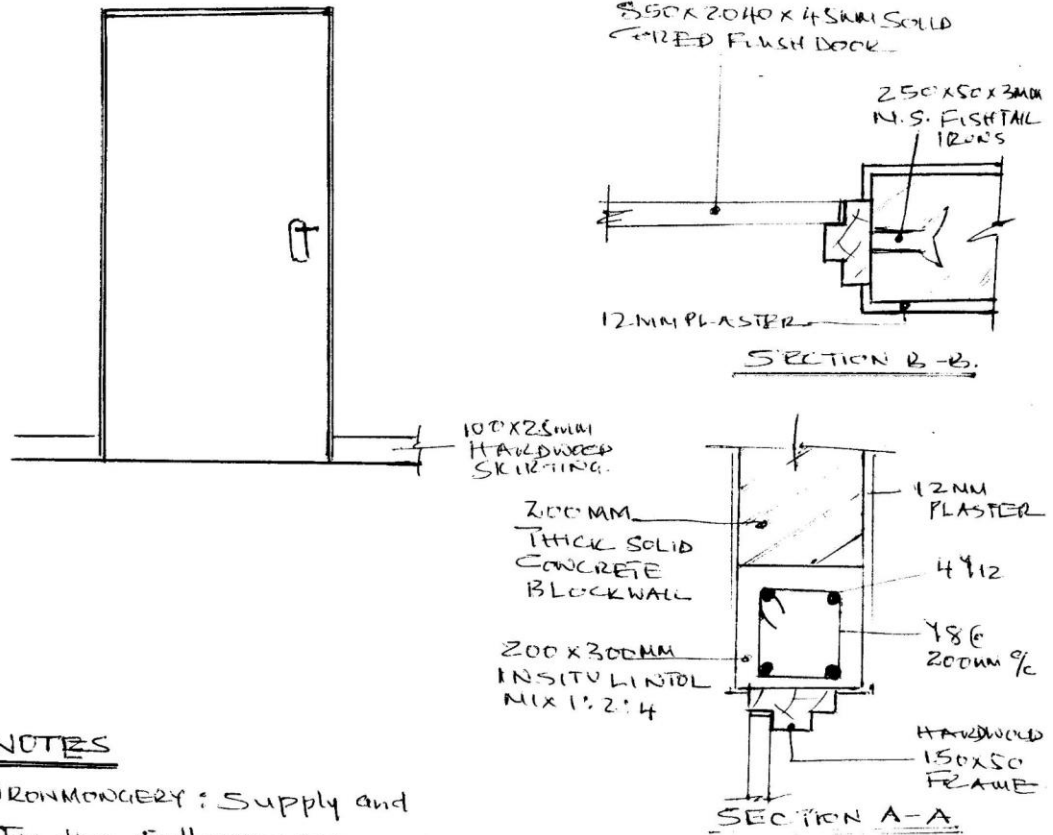


DRAWING NO 03

Not to Scale



# FLUSH DOOR [INTERNAL]



## NOTES

IRONMONGERY: Supply and Fix the following ironmongery items

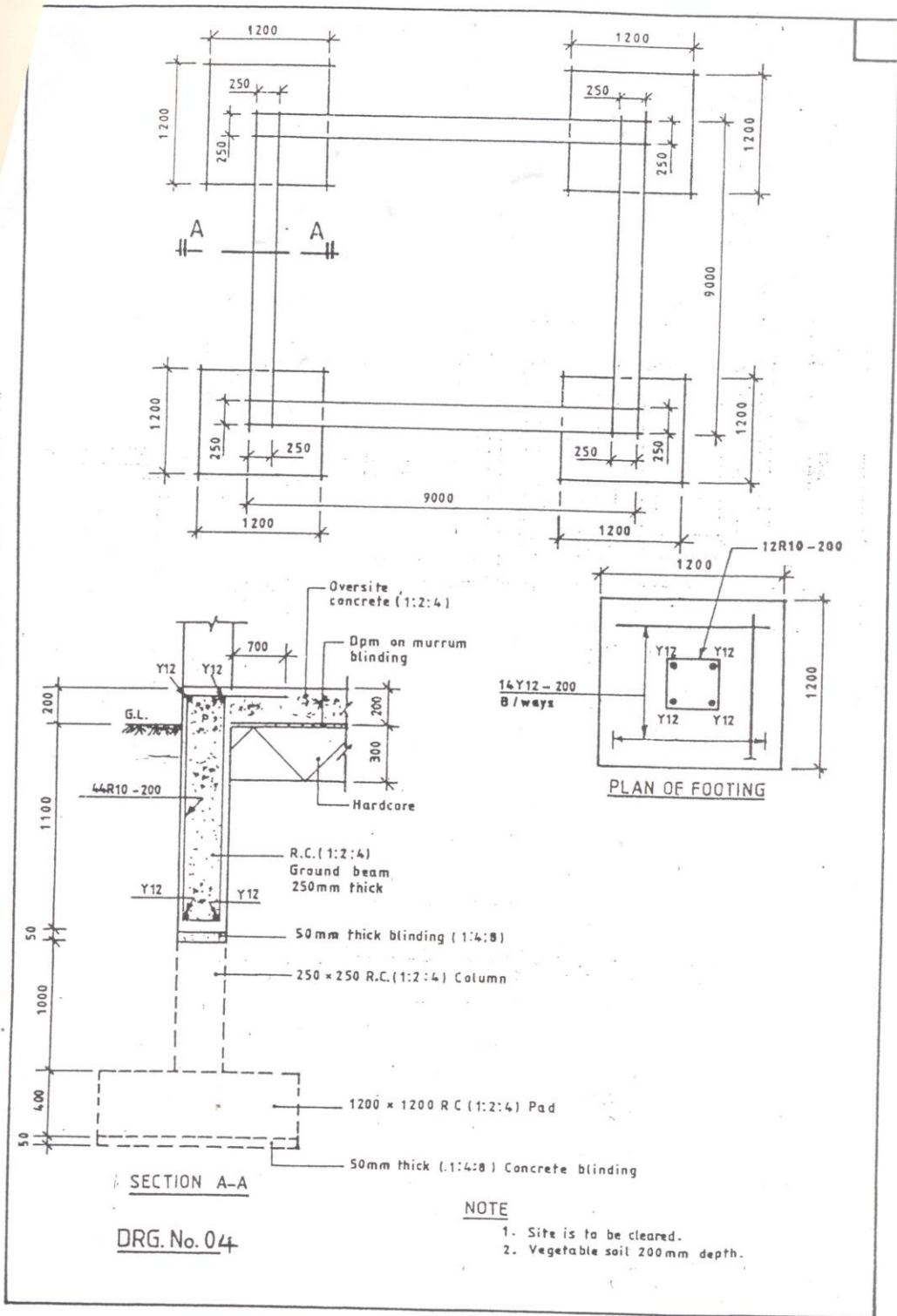
1. 100mm wide brass butt hinges.
2. 3 lever mortice lock
3. 38mm rubber door step
4. Automatic door closer type.

A193.

5. 150mm long brass bavel bolt.

DRAWING NO 02  
Not to Scale.





DRG. No. 04

- NOTE**
- 1. Site is to be cleared.
  - 2. Vegetable soil 200mm depth.