UNIVERSITY OF JOHANNESBURG

END OF YEAR EXAMINATION

FACULTY	:	ENGINEERING AND BUILT ENVIRONMENT
DEPARTMENT	:	CONSTRUCTION MANAGEMENT AND QUANTITY SURVEYING
SUBJECT	:	DESCRIPTIVE QUANTIFICATION 1 B
SUBJECT CODE	:	DQUANB1
LECTURER	:	BERNARD MARTIN ARTHUR-AIDOO
MODERATOR	:	Mr. ANSARY NAZEEM
DATE	:	Nov- Dec 2017
MARKS	:	**100**

SUMMER EXAMINATION 2017
22 NOVEMBER 2017

(SESSION 1) 08:30 - 11:30

INSTRUCTIONS ANSWER ALL QUESTIONS

SECTION A

Measure the foundation and floor construction, super structure walls, internal finishes, roofs, doors and windows of the office building as shown on drawing no QSB 111 in accordance with the specification given below.

SPECIFICATION

Earthworks

- Use 3.0m clearance from the face of the wall as your QS note.
- The soil investigation reveals that the ground is ordinary earth but interspersed with soft rock approximately 10% and hard rock 5%.
- Backfilling to trenches from excavated material compacted to 98% modified AASHTO density.
- Topsoil to be stripped to an average thickness of 120mm and stockpile for later re-use in landscaping of garden.
- Excavation to surface trenches to commence from strip level.
- Surplus excavated material to be carted away to a dumpsite to be located by the contractor.

Concrete

- Concrete in footings to be unreinforced concrete class 20Mpa/19mm stone size.

Masonry Brickwork

- 270mm Cavity wall formed of two half brick skins with 50mm cavity between, built in NFX bricks in class II cement mortar in stretcher bond, skins tied together with and including galvanised wire butterfly ties.
- 110mm thick wall in stretcher bond with class II in cement mortar as internal wall.
- 3 courses of brickwork walling as beam filling and band

Foundation - Cavity wall foundation – 750 x 230mm
110mm wall foundation – 500 x 230mm

Floor Construction

- 1:4 in 50mm thick cement screed
- 100mm thick unreinforced concrete 20Mpa/19mm surface Bed,
- 50mm thick sand river bed supplied by a nominated agent
- Compacted inert earth filling material 150mm thick.

Waterproofing

- 250 Micron damp proof membrane laid on top of 50mm thick sand bedding on compacted earth filling.
- 375 Micron SANS approved damp proof course on walls.

Internal and External finishes
Ceiling and Skirt board

- 6.4mm gypsum plaster fixed to ceiling.
- 75mm gypsum covers cornice.
- 50mm wooden skirt board

Plastering

- 1.4 cement sand plaster to walls internally
- 1:2 cement plaster for external use only

Painting

- 2 coats PAV on both ceiling and walls both internal
- 3 coats PVA on external walls
- KPS 3 coats on skirting not exceeding 300mm girth

SECTION B

1.1. What is the purpose of the standard system of measurement? **(2 Marks)**

1.2. Identify at least four skills required by a quantity surveyor when practicing. **(4 Marks)**

1.3. Illustrate on a dimension sheet how the following are applied in Quantity surveying practice.

i Squaring **(2 Marks)**

ii Ampasand sign **(2 Marks)**

iii Alteration to dimension **(2 Marks)**

1.4. Demonstrate the following on a dimension paper. Excavate for surface trench not exceeding 2m depth. Using the following dimension length of trench 20.75, width of trench 0.5m and depth of trench 1.0m.

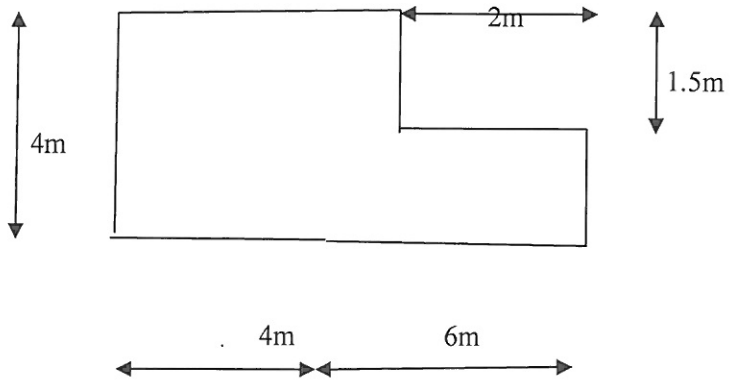
(2 Marks)

1.5. What items are priced under the preliminarily section of a bill of quantities **(2 Marks)**

1.6. Write short notes on the term 'Taking Off'' **(2 Marks)**

1.7. State two sources of information available for a Quantity surveyor **(2 Marks)**

1.8. The figure below is the layout of building on a site to be cleared. Measure using the given dimensions without making any allowance from the face of the wall.



(20 Marks)

QUANTITY SURVEYING 1: QSB 111

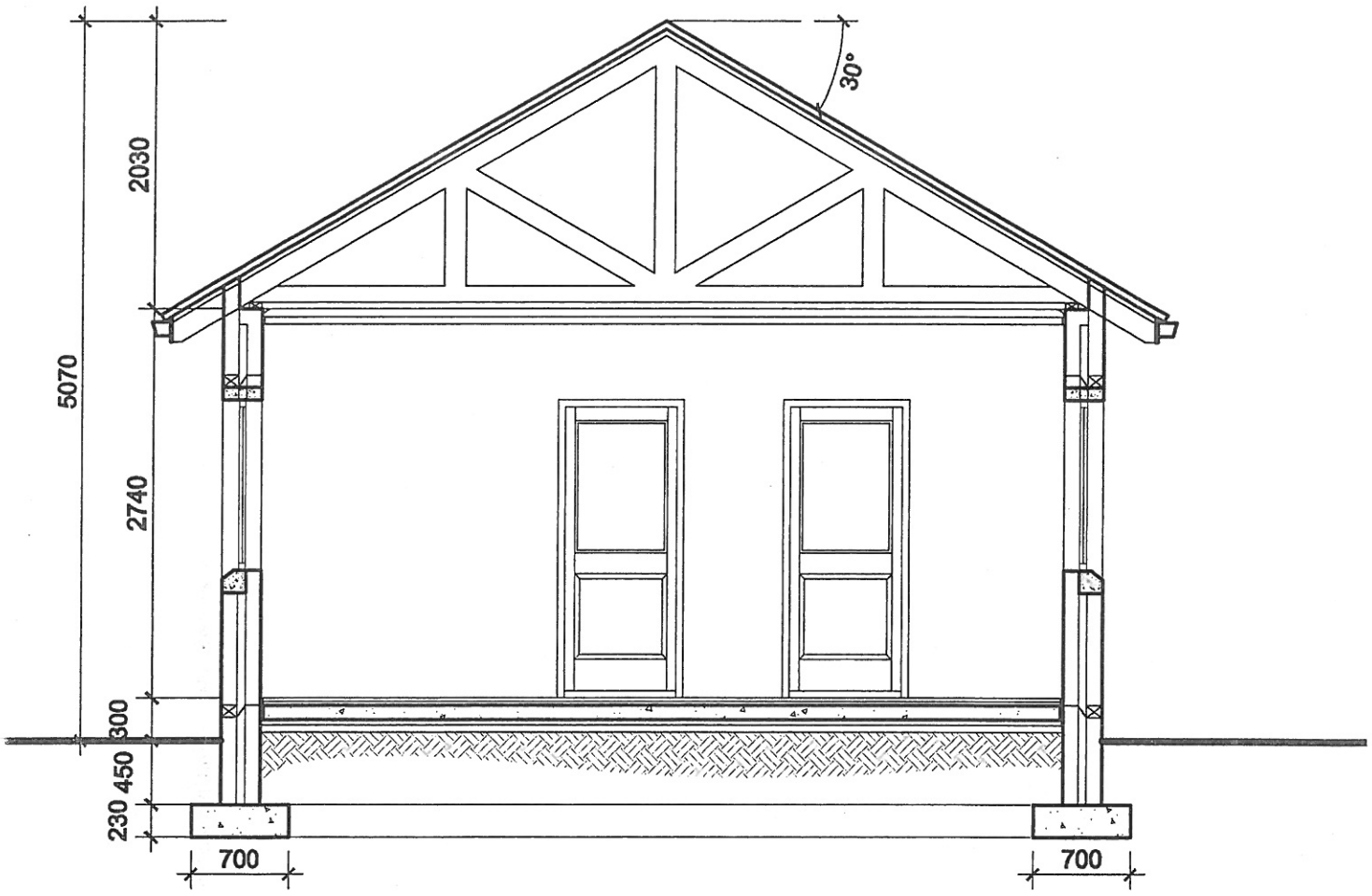
SECTION A: DESCRIPTIVE QUANTIFICATION

STUDENT SURNAME & INITIALS:.....

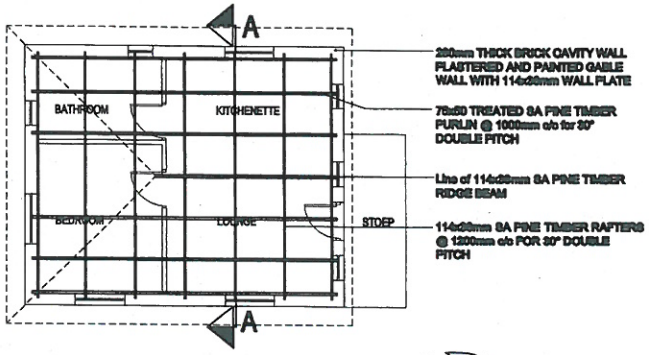
STUDENT NUMBER.....

Assessment Rubbic (Attach to Assessment Paper):

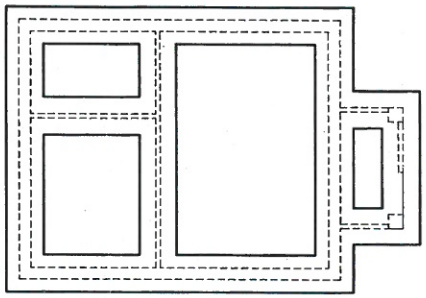
Criteria	No evidence of criteria (0)	Minimal attempt to meet criteria (1)	Some attempt to meet Criteria (2)	Meets criteria (3)	Exceeds criteria (4)	Points
Setting Down Dimensions (max pnts: 16X4=64)						
Timesing						
Dotting - on						
Waste Calculations						
Alterations						
Description (presentation)						
Adding – on						
Deductions						
Spacing of Dimensions						
Accuracy	0	≥ 25%	≥50%	≥75%	=100%	
Numbering of Dimension sheets						
Clearness of Dimension						
Headings						
The use of "ditto"						
Squaring						
Notes						
Sub – Total						
Presentation (max pnt))						
Project Details						
Taking- off details						
Taking- off list						
Neatness						
Sub – Total (70)						
Total (70 +30)						
Total (SECTION A) + (SECTION B)						
GRAND TOTAL (100)						



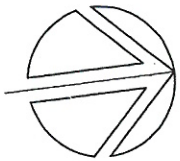
SECTION A-A 1:50

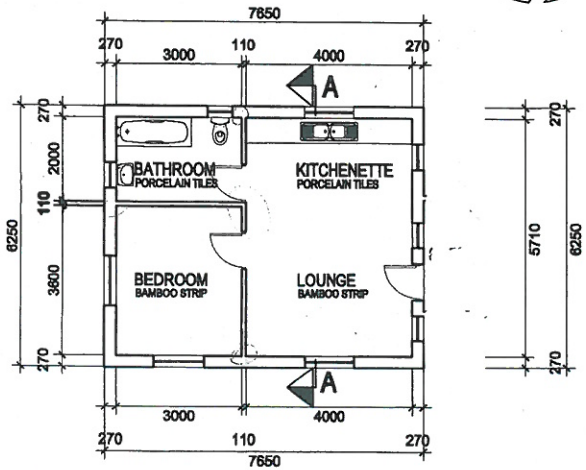


ROOF STRUCTURE PLAN

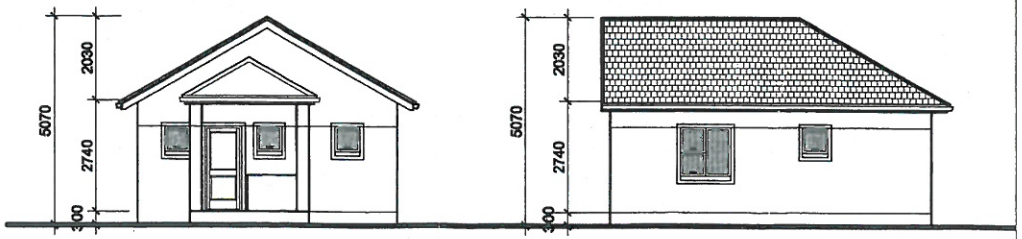


FOUNDATION PLAN





GROUND STOREY PLAN



NORTH ELEVATION

WEST ELEVATION

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Dimension paper

Student Name and No.....