

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF ARCHITECTURE AND QUANTITY SURVEYING

DEPARTMENT OF ARCHITECTURE
BACHELOR OF ARCHITECTURAL STUDIES (HONOURS) DEGREE

PART III SUPPLEMENTARY EXAMINATIONS – SEPTEMBER 2007
AAR 3108 – BUILDING CONSTRUCTION III

Instructions

Duration: 4 Hours

Answer **all three (3) questions.**

Question 1 is to be answered on a single A1 sheet separately

Marks will be awarded to neatly presented work.

You can draw either in pencil or technical pen.

Number all your sheets.

Do not write your name on any sheet.

QUESTION 1

NUST requires a workshop measuring 36m by 24m which would allow working under diffused natural light conditions. Provides drawings for the same on a single A1 sheet illustrating **a two bay saw-tooth lattice trusses with girder supporting internal columns roof form.**

Show relevant details at appropriate scales.

[50]

QUESTION 2

Draw neat and clearly annotated typical sketch details of the following:

- a) Pile underpinning
- b) Mobile scaffolding
- c) Timber formwork details for beams.

[25]

QUESTION 3

Explain in detail the cost implications of providing basement to your client who wants to put up a residential structure in some wetlands. Draw a scaled typical section of brick basement wall showing **internal** tanking in mastic asphalt on a raft foundation.

[25]