

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

DEPARTMENT OF ARCHITECTURE
BACHELOR OF ARCHITECTURAL STUDIES (HONOURS) DEGREE

PART V FIRST SEMESTER EXAMINATIONS – DECEMBER 2002
AAR 5102 – BUILDING CONSTRUCTION V

Instructions

Answer All Questions

All diagrams should be clearly annotated.

Time : 3 Hours

QUESTION 1

- a) Define at least three common types of subsoils that are encountered in Zimbabwe using annotated detailed free hand sketches, show the appropriate recommended large buildings foundation type that can be used for each of the subsoil types. [10]
- b) Draw a section through the foundation; walls and roof of one of the large scale building types used above? [10]
- c) Sketch clearly annotated enlarged details of the foundations, walls and roof from the section above. Waterproofing should be clearly indicated on each of the details above. [5]

QUESTION 2

- a) Produce a detailed sketch of a section through a Chromadeck clad warehouse. [10]
- b) Enlarge the details of the foundations; wall sections and roof sections clearly detailing the fire proofing elements. [10]
- c) Produce a Schedule of Finishes which would be appropriate for the warehouse. [5]

QUESTION 3

- a) Using annotated sketches clearly indicate the difference between formwork, shoring and scaffolding temporary works system. [10]
- b) Produce a detailed sketch to indicate the appropriate temporary works required for a 3m reinforced brick window lintel. [10]
- c) Using a detailed sketch illustrate the difference between underpinning in buildings and demolition. [5]

QUESTION 4

- a) Assume your practice has been commissioned to be the principal agents for the construction of a house. Produce a construction equipment plan. [10]
- b) Which are the major elements of the building codes to be observed in construction and equipment planning. [10]
- c) Produce a site visit and reporting schedule to be used during the house construction. [5]