

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

DEPARTMENT OF ARCHITECTURE  
BACHELOR OF ARCHITECTURAL STUDIES (HONOURS) DEGREE

PART II – SUPPLEMENTARY EXAMINATIONS – JULY 2005  
AAR 2102 – BUILDING CONSTRUCTION I

Instructions

Time : 3 Hours

Answer All Questions.

All Question Carry Equal Marks.

QUESTION 1

- a) Explain clearly the duties of the Architect and Quantity Surveyor in the stages of project development. (10)
- b) Explain the methods used in investigating sub-surface. Use sketch drawings where necessary. (15)

QUESTION 2

- a) A proposed rectangular double storey building is surrounded by existing buildings on its width. What type of foundation would you recommend for such a building and why? Illustrate with the use of sketch drawings. (15)
- b) What are the advantages of solid floor over a suspended floor? (5)
- c) Which material is used to prevent moisture from penetrating into the building and how it is applied? (5)

QUESTION 3

Provide a section through the external wall of a residential building with a suspended floor section up to the lintel level and label all types of used materials as well as providing their dimensions. (25)

QUESTION 4

- a) Which types of lintel construction are used in Zimbabwe? (5)
- b) Describe the principles to be observed in the construction of cavity walls. (10)
- c) Briefly describe the methods of improving the bearing capacity of soils. (10)