

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

**DEPARTMENT OF ARCHITECTURE  
BACHELOR OF ARCHITECTURAL STUDIES (HONOURS) DEGREE**

**PART II - SECOND SEMESTER EXAMINATIONS - MAY 2005  
AAR – 2202 BUILDING CONSTRUCTION II**

Instructions

Time: 3 Hours

**Answer All Questions**

**QUESTION 1**

A proposed rectangular single storey block of two classrooms measures 18 000mm by 7 660mm. The 7 660mm width is inclusive of a 1 660mm corridor with five (5) equally spaced brick- columns measuring 460mm by 460mm on the edge of the corridor. The eaves are 600mm. This building is to be constructed in Bulawayo.

- a) Which roof type would you recommend for the above building? Give reasons for your choice. (5)
- b) Provide a roof plan for this building showing all roof members. This should include proper spacing of the roof members & state what governs the spacing. (10)
- c) Draw a section of the roof showing all different roof constructional members. (10)
- d) Assuming that one of the sides of the block will be under hipped roof type, draw its truncated truss. (5)
- e) Provide a well detailed drawing of the junction of the roof & the external wall. State the sizes & purpose served by each roof member. (10)

**QUESTION 2**

- a) What are the constructional requirements of a fire place? (10)
- b) Provide a typical plan and section of a fire-place in a residential building. (10)

**QUESTION 3**

- a) According to the MBBL what are the requirements of construction of stairs? (5)
- b) Use drawings to illustrate 4 different types of stairs, stating their methods of construction (8)

c) Draw at least two constructional details of one of the above stair types. (7)

**QUESTION 4**

a) Describe the method of production of textured finish using form-work. (8)

b) Draw at least 3 different types of doors in the form of their elevations, sections and constructional details. (12)