

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF THE BUILT ENVIRONMENT

DEPARTMENT OF ARCHITECTURE
BACHELOR OF ARCHITECTURAL STUDIES (HONOURS) DEGREE

PART II – END OF FIRST SEMESTER EXAMINATIONS – JANUARY 2008
BAR 2102 – BUILDING CONSTRUCTION II

Instructions

Duration: 4 Hours

Answer Question I and two (2) others.

Question I to be answered on a single A1 sheet to be provided.

Use pencil or technical pen for drawing.

Marks will be awarded to organised and neat drawing.

Do not write your name on the sheets

Question One

Design the draw to appropriate scales a wooden doorset for a low cost core house. The shutter, shall be a timber framed, ledged, braced and battened one measuring 2000 mm by 820 mm. Draw plan, section and elevation and relevant details. (50)

Question Two

With the aid of sketches distinguish between the following in each case

- a) Pad foundations and raft foundations
- b) English bonding and Flemish bonding in brickwork.
- c) Floating (solid) ground floor slab and suspended ground floor slab.
- d) Brick lintel and flat brick arch.
- e) Hipped roof and mansard roof. (25)

Question Three

- a) Explain the functional requirements of a good ground floor.
- b) Design and draw to scale a wooden ground floor for a single cell structure with a carpet area of 5m by 4m. (25)

Question Four

Draw neat detailed sketches of the following

- a) Different forms of coping you have learnt. (6)
- b) Precast window cill showing how you prevent dampness (6)
- c) A labelled elevation of a two-light wooden casement window with a ventlight and one openable casement of full height. (7)
- d) A box gutter detail at the foot of an inclined roof against a brick parapet wall. (6)