

**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 2003  
**AAR 2202 – BUILDING CONSTRUCTION II**

**Instructions**

**Time : 3 Hours**

1. Answer **ALL Questions**
  2. All Questions Carry equal marks (25)
  3. Illustrate your answers with clearly annotated drawings.
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**QUESTION 1**

- a) Describe the Protected Membrane Roof (PMR).
- b) What features distinguish the PMR and a traditional flat roof with the insulation located between the membrane and the roof deck?

**QUESTION 2**

- a) Write a short note to explain the primary function of cladding in buildings.
- b) Illustrate the construction details of a brick curtain wall fixed to a spandrel “I” beam and steel supporting frame, where the brick curtain wall runs between horizontal bands of glass windows.

**QUESTION 3**

- a) Describe the two main categories of wall finish .
- b) Prescribe a suitable method of finish for the internal face of a load bearing industrial brick wall.
- c) One of the problems of concrete wall construction is discolouration (colour change). In what ways can this be controlled. You may cite the case for a smooth concrete wall finish.

**QUESTION 4**

- a) Give a detailed description of the special features of the traditional fireplace for enhancing its effectiveness as a heat production appliance in domestic buildings.
- b) Discuss the bye-laws which guide the construction of the traditional fire place through the timber roof trusses to the chimney stack.