

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

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

PART II - FIRST SEMESTER EXAMINATIONS – DECEMBER 2006  
**AAR2103 – COMPUTER AIDED ARCHITECTURAL DESIGN 1**

**INSTRUCTIONS**

**Time: 4 Hours**

- 1) *Each candidate to be provided one copy of question papers, Appendix 1 on A3 sheets, and an empty floppy disk 3½”.*
- 2) *Carefully read the description of the architectural design of the house represented in Appendix 1.*
- 3) *Answer all questions.*
- 4) *Marks for each question are indicated in brackets.*

Appendix 1 represents an architectural design of a three bed roomed house. The design consists of a floor plan, Section A-A and four (4) elevations.

The floor plan shows the following accommodations:

- A lounge
- A dining room
- A master bedroom with ensuite bath
- A toilet
- A bathroom
- A kitchen
- Bedroom 1
- Bedroom 2

The windows and doors are from the standard Monarch Metal Catalogue.

**QUESTIONS**

1. Draw the North, South, East and West elevations. [25]
2. Indicate all dimensions on the floor plan and on Section A-A. [25]
3. Label elevations and section correctly according to the north point shown. [5]
4. Label the rooms, indicate floor finishes. [5]
5. Annotate the elevations and sections (as on the printed A3 sheet) showing all construction notes provided. [5]

6. Arrange the sanitary fittings in their appropriate and respective places. [5]

7. Use the HATCH command to hatch the following:

(a) the walls on the floor plan and the section A-A.

(b) the roof covering in the elevations.

(c) reinforced concrete beams, footings the hardcore filling and concrete slabs on the section A-A. [10]

8. Open the Layers Dialogue Box and assign /change the colours to the objects in the layers in the layers listed below:

<b><u>Layer Name</u></b>	<b><u>Colour Required</u></b>	
Elevations	White	
Walls	Yellow	
Doors	Magenta	
Dimensions	Magenta	
Windows	Red	
Sanitary Fittings	White	
Room Annotations and text	Grey	
Furniture	White	
Notes	Red	[10]

9. Fill in your details in the Title Block provided (Date, Candidate number, etc) [10]

10. Save the drawing file as AAR 2103/ Candidate number on the 3 ½” floppy disk provided. [5]