

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 – AUGUST 2004
AAR 2104 ENVIRONMENTAL DESIGN I

Instructions

Time : 3 Hours

Answer all questions

QUESTION 1

Environmental Design is one of three technological systems that apply in all buildings. Describe and explain the principal objectives of all environmental design systems. [30]

QUESTION 2

On the attached sheet is a list of climatic data relating to a tropical city.

- i) Draw out a standard climate graph, plotting all the listed data on it. [15]
- ii) Identity from the data, in which climatic zone the city is, and describe the climatic characteristics of that zone. [15]

QUESTION 3

Define and describe five common heat exchange processes. [15]

QUESTION 4

Explain and describe how buildings and their immediate surroundings modify the local climate. Use the central business district of Bulawayo as an example. [25]