



MASENO UNIVERSITY

UNIVERSITY EXAMINATIONS 2012/2013

SECOND YEAR SECOND SEMESTER EXAMINATIONS FOR THE DEGREE OF BACHELOR OF ARTS IN INTERIOR AND FASHION DESIGN WITH INFORMATION TECHNOLOGY (MAIN CAMPUS)

ADI 208: ENVIRONMENTAL DESIGN AND ERGONOMICS

Date: 18th July, 2013

Time: 8.30 – 10.30 a.m.

INSTRUCTIONS:

- ◆ This paper consists of TWO Sections, A and B.
- ◆ Answer ALL questions from Section A (30 marks) and ANY TWO questions from Section B (20 marks) in the answer booklets.

SECTION A(30mks)

1. Define the following terms:
 - a) Environmental sustainability (1mk)
 - b) Ergonomics (1mk)
 - c) Universal design. (1mk).

- 2 a) Illustrate a typical sign for wheelchair accessibility within an environment (2mks)

- b) List the differences between masculine and feminine body figures in relation to anthropometrics and design of products. (3mks)

3. a) Differentiate between *physical*ergonomics and *organizational*ergonomics, give relevant examples. (4mks)

- b) Outline the main objectives of ergonomics when designing products. (3mks)

4. a) Describe the **three** constituent partsof sustainable designing. (6mks)

- b) Describe an '*unsustainable situation*' in environmental design. (2mks)

5. a) Identify and describe **two** different pattern uses of spaceinvolved in proxemics. (5mks)

- b) Briefly explain the aspect of '*territoriality*'. (2mks)

SECTION B (20mks)

Instructions:

Answer any TWO (2) questions in the answer booklet provided. Use illustrations or diagrams where necessary.

10. Discuss the 'Agenda 21 document' of the United Nations Conference of 1992 in Brazil, which was later followed by others. Indicate the kind of steps that have been taken in Kenya to achieve its stated objectives. (10mks)

11. Expound on Environmental pollution and how design products have contributed to worsening the situation. (10mks)

12. You are to design a bar-lounge, illustrate using diagrams any **five** different body movements in kinesiology that you would considered so as to create an ergonomic design. (10mks)

13. Your Design company has collected anthropometric data for ergonomic designing. Explain to the students visiting your company on the different categories of designing for a population that you intend to use the data for. (10mks)