

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF INDUSTRIAL TECHNOLOGY

DEPARTMENT OF TECHNICAL TEACHER EDUCATION

2010-2011 ACADEMIC YEAR

PART I-FIRST SEMESTER SUPPLEMENTARY EXAMINATIONS-AUGUST 2011

AAR 1104-INTRODUCTION TO MATERIALS AND CONSTRUCTION I

Instructions

Time: 2 hours

Answer all questions.

Illustrate your answers with sketches where appropriate.

QUESTION 1

- a. What are the uses of timber in construction.[10]
- b. Describe the 3 main types of adulterants used in mortar and explain the classification of sand.[15]

QUESTION 2

- a. What are the properties of bricks.[5]
- b. Define the following terms;
 - brick,
 - Setting and hardening in cement hydration,
 - Workability and concrete yield in concrete preparation [5]
- c. Compare methods of timber seasoning.[15]

QUESTION 3

- a. Explain and differentiate the two methods of cement manufacture.[15]
- b. State the properties of good building stones.[10]

QUESTION 4

- a. What is concrete curing? State and explain the methods of concrete curing.[15]
- b. Discuss methods of brick bonding giving their advantages.[10]