

**NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY**

FACULTY OF INDUSTRIAL TECHNOLOGY

**DEPARTMENT OF TECHNICAL TEACHER EDUCATION**

2010-2011 ACADEMIC YEAR

PART I-FIRST SEMESTER EXAMINATIONS-JANUARY 2011

**AAR 1104-INTRODUCTION TO MATERIALS AND CONSTRUCTION I**

**Instructions**

**Time: 2 hours**

*Answer all questions. Total Marks 100.*

*Illustrate your answers with sketches where appropriate.*

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**QUESTION 1**

- a. What characteristics make timber a good building material.[5]
- b. What are the objectives of seasoning? Discuss timber seasoning.[15]
- c. Preservation increases the durability of timber. Discuss the methods of wood preservation.[15]
- d. State and explain with diagrams the uses of timber in building construction.[15]

[50]

**QUESTION 2**

- a. Discuss the composition of ordinary cement.[10]
- b. Explain the importance of the water cement ratio in concrete preparations.[10]
- c. What is the function of sand in mortar mix.[5]

[25]

**QUESTION 3**

- a. Discuss methods of brick bonding giving their advantages.[15]
- b. Plasters form part of building wall finishes. Compare the different types of plasters[10]

[25]