

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF THE BUILT ENVIRONMENT
DEPARTMENT OF ARCHITECTURE
BACHELOR OF ARCHITECTURAL STUDIES (HONOURS) DEGREE
BACHELOR OF QUANTITY SURVEYING (HONOURS) DEGREE
2013-2014 ACADEMIC YEAR
PART I-SECOND SEMESTER EXAMINATIONS-MAY 2014

AAR 1204 INTRODUCTION TO MATERIALS AND CONSTRUCTION II
AAR 1208 INTRODUCTION TO CONSTRUCTION MATERIALS II

Instructions

Time: 2 hours

Answer All Questions.

Illustrate your answers with sketches where appropriate.

QUESTION 1

- a. How would you prepare the following backgrounds for plastering:
- i. Smooth brick wall (3)
 - ii. Textured concrete wall (3)
 - iii. Earth wall (3)
- b. State any 3 advantages and 3 disadvantages of using plasters in construction. (6)
- c. A client is constructing his residence and requires your advice on the types of paints suitable for the different spaces with special consideration to oil-based and water-based paints. Give reasons for your recommendations. (10)

[25]

QUESTION 2

- a. Describe 2 properties of each of the 2 main types of plastics used in construction (4)
- b. Give 3 examples from each of the plastics discussed in (a) and their application in construction. (6)
- c. Write brief notes on any 3 types of safety glass used in construction. (15)

[25]

QUESTION 3

- a. Sketch a typical detail of the following roofing materials and do a brief evaluation of their performance:
- i. Asbestos (5)
 - ii. Bitumen (5)
 - iii. Clay tiles (5)
- b. Compare the performance of any 3 materials you have studied that are suitable for sanitary fittings. (10)
- [25]**

QUESTION 4

- a. With the aid of sketches describe any 5 market forms of steel and their application in construction. (10)
- b. In present day, many Zimbabweans seem to opt for ceramic tiles as an ideal floor finish for their residences:
- i. What are the advantages and disadvantages of this? (6)
 - ii. Give any 3 alternative floor finishes that can be used justifying your standpoint. (9)
- [25]**