

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
PART I-SUPPLEMENTARY EXAMINATIONS-JULY 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. Write brief notes on the following paints:
- i. Oil paint (3)
 - ii. Varnish (3)
 - iii. Aluminum paint (3)
 - iv. Water-based paint (3)
 - v. Epoxy paint (3)
- b. Describe any five ways of applying paints on surfaces in construction. (10)
- [25]**

QUESTION 2

- a. List any 5 factors that one should consider when recommending PVC for any piping installations. (5)
- b. Give any five uses of rubber in construction and explain its advantage in each of the uses mentioned. (10)
- c. Steel is widely used for various purposes in industrial buildings. Why do you think it is a favoured material in such buildings giving examples of where it is applied? (10)
- [25]**

QUESTION 3

- a. State any five properties of asphalt that make it an ideal construction material. (5)

- b. Draw a typical section of the application of bitumen in basement construction. (10)
 - c. Compare the performance of ceramic pipes to cast iron pipes in sewerage piping. (10)
- [25]**

QUESTION 4

- a. A client is constructing a 20-storey office block in the central business district of Bulawayo. Recommend the five top options of glass they can use justifying your answer. (15)
 - b. Describe the procedures of laying the following floor finishes giving 2 examples where they are ideally used in construction:
 - i. Ceramic tiles (5)
 - a. Carpet (5)
- [25]**