



NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF THE BUILT ENVIRONMENT

DEPARTMENT OF ARCHITECTURE

INTRODUCTION TO MATERIALS AND CONSTRUCTION II

BAR 1204

SEMESTER II EXAM PAPER

October 2024

This examination paper consists of 2 pages

Time Allowed: 3 hours

Total Marks: 100

Special Requirements: NONE

Examiner's Name: Mr M.A. Sibanda

INSTRUCTIONS

1. Answer 4 (four) questions.
2. Each question carries 25 marks.
3. Illustrate your answers with sketches where appropriate.

MARK ALLOCATION

QUESTION	MARKS
1.	25
2.	25
3.	25
4.	25
5.	25
6.	25
TOTAL	100

QUESTION 1

- a) Discuss the properties of plastics that make them suitable for construction. (15)
- b) Highlight where in construction plastics can be used. (5)
- c) Describe what linoleum is and its use as a floor finishing material. (5)

QUESTION 2

- a) Discuss the use of carpets as a floor finish, comparing their use with that of timber tiles, highlighting the advantages and disadvantages of the use of carpets. (15)
- b) What two preventative measures can be used to guard against the corrosion of metals used in construction? (6)
- c) List 2 different types of wallpaper that can be used in residential premises, and for each state where it is most suited to be used. (4)

QUESTION 3

Name 5 types of roofing materials outlining how they are fixed to the roof. (25)

QUESTION 4

- a) What factors are considered in the selection of a wall finish? (5)
- b) Ceramic tiles are proving to be a popular finishing material
 - i. Discuss where tiles can be applied in a building (4)
 - ii. State the advantages and disadvantages of using ceramic tiles as a finish (6)
- c) Discuss the defects that can occur after painting in construction? (10)

QUESTION 5

- a) Discuss and clearly explain what whitewash is, highlighting where it is used in construction. (10)
- b) State and explain the advantages and disadvantages of using whitewash as opposed to paint as a finishing material. (15)

QUESTION 6

Discuss grano as a finishing material. Your answer is expected to highlight the general description of grano, where it is used, its composition, as well as the advantages and disadvantages of using it over any other finishing material.

(25)