



TECHNICAL UNIVERSITY OF MOMBASA

SCHOOL OF ENGINEERING AND TECHNOLOGY

Department of BUILDING & Civil engineering

UNIVERSITY EXAMINATION FOR:

BACHELOR OF SCIENCE IN ENVIRONMENTAL HEALTH

EBC 4451 : BUILDING PATHOLOGY

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: NOVEMBER 2024

TIME: 2 HOURS

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **five** questions.

Attempt question ONE (Compulsory) and any other TWO questions.

Do not write on the question paper.

QUESTION ONE (COMPULSORY) 30 Marks

- a) Outline the basic aim building pathology (4 marks)
- b) Outline the following
 - i. Condition based maintenance
 - ii. Corrective maintenance
 - iii. Components of concrete (6 marks)
- c) With the aid of a sketch explain the procedure of plastering block wall (10 marks)
- d) Explain the following
 - i. Bio deterioration
 - ii. Bio degradation
 - iii. Modern method of construction (10 marks)

ANSWER ANY TWO QUESTIONS FROM THIS SECTION

QUESTION TWO (20 Marks)

- a) Explain the development of cracks in building and the procedure of repairing (10 marks)
- b) Explain the defects in building caused the following
 - i. Excessive moisture

- ii. Condensation
- iii. Water leakages (10 marks)

QUESTION THREE (20 Marks)

- a) Explain the following
 - i. Rusting defects
 - ii. Mold growth defect (10 marks)
- b) Explain the procedure of writing a pathology report for a potential buyer. The house is twenty years old (10 marks)

QUESTION FOUR (20 Marks)

- a) Explain the term bio deterioration as used in building pathology (6 marks)
- b) State defects in wall plastering (4 marks)
- c) State the advantages of modern method construction (4marks)
- d) Outline the roles of environmental Environment health officer in building pathology (6 marks)

QUESTION FIVE (20 Marks)

- a) Explain the three defects caused by a house frequently surrounded by water(swampy) (6 marks)
- b) Explain the importance of building pathology report (6 marks)
- c) Sketch a section of a building and label the part of solid ground floor (8 marks)

