

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
SCHOOL OF ENVIRONMENTAL TECHNOLOGY
DEPARTMENT OF ARCHITECTURE

SECOND SEMESTER EXAMINATION 2017/2018 SESSION

COURSE TITLE: BUILDING MAINTENANCE

COURSE CODE: ARC 522

LEVEL: 500

HEAD OF DEPT: DR P. AYUBA

LECTURER: PROF S. N. ZUBAIRU

TIME ALLOWED: 2 HOURS 30 MINUTES

INSTRUCTIONS: Answer **any FOUR** questions. All sketches **MUST** be in **PENCIL**.

- 1.(a) Why are lives of buildings difficult to assess?
(b) Draw a table indicating the expected life and maintenance intervals of some common floor finishes.
(15 marks)

2. (a) What are the criteria used for listing of buildings?
(b) Sketch (full page) and discuss any ONE of the following listed buildings, indicating town, country and continent:
NECOM Building, White House, Eiffel Tower, Petronas Towers, Sydney Opera House, Parthenon, Empire State Building.
(15 marks)

- 3.(a) What are the various causes of settlement of buildings?
(b) Using sketches describe three types of settlement.
(c) Illustrate the use of dead shores.
(15 marks)

- 4.(a) What is underpinning? Why may it be necessary to underpin a building?
(b) Using sketches describe jack-pile method of underpinning a building.
(c) What are the advantages and disadvantages of outsourcing maintenance works?
(15 marks)

- 5.(a) The Leaning Tower of Pisa underwent many interventions to stabilise the tower. Discuss.
(b) Provide a full page illustration of the tower.
(15 marks)