

The Papua New Guinea University of Technology
Department of Architecture and Construction Management
Second Semester, 2023

AR327 – Green Architecture

Date: Wednesday (25/10/2022)
Time: 12.50pm
Room: L2
Duration: 3 hours

Instruction to Candidates:

- 1.0 You have 10 minutes to read the paper.
You must not begin writing during this time.
- 2.0 All answers must be written on the answer book(s) provided
- 3.0 Print your name and student identification number on the answer book(s) provided.
Do it now.
- 4.0 No reference material is allowed in the examination room.
- 5.0 No mobile phones allowed.
- 6.0 Attempt All Questions
- 7.0 **NB: This examination has 2 parts: Part A, and Part B.**
 - 7.1 **Part A** has 5 questions (this part includes Question No.1 through to Question No.5).
 - 7.2 **Part B** also has 5 questions (it is made up of questions from Question No.6 through to Question No.10).
 - 7.3 Ensure to provide answers in separate clearly labeled Part A and Part B Answers Books

PART A (Total 21 marks)

Question No.1 (4 marks)

Is green building part of sustainable architecture? Explain

Question No.2 (5 marks)

Green building focuses on 5 main areas. Identify and explain these areas.

Question No.3 (4 marks)

Green building rating systems have become popular in many countries. Explain why this is so.

Question No.4 (4 marks)

Understanding the prevailing climatic conditions of a site is crucial in any building design. This is more so in trying to meet the goals of green building --- Explain.

Question No.5 (4 marks)

Suggest some strategies which architects can use in their desire to achieving green building goals.

PART B (Total 20 marks)

Question No.6 (4 marks)

What makes a building “Green”?

Question No.7 (4 marks)

How does construction industry affect climate changes?

Question No.8 (3 marks)

Briefly describe the economic benefits of green buildings.

Question No.9 (4 marks)

Define buildings' envelopes and their importance.

Question No.10 (5 marks)

Explain Solar energy contributions in green building strategy.