



BOWEN UNIVERSITY IWO
(Of the Nigerian Baptist Convention)
College of Environmental Science (COEVS)
Architecture Programme

Course Title: Introduction to Sustainable Built Environment

Course Code: FAA 126

Session: Second Semester 2023/2024

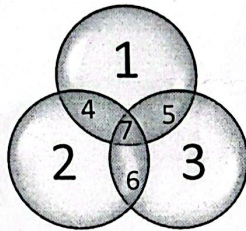
Instruction: Answer question one (1) and any other three (3) questions.

Time allowed: 2 HOURS

Draw and give relevant examples where necessary.

Warning: please note that you are not allowed to bring mobile phone(s) into the examination hall. Non-compliance will amount to examination misconduct and attract stiff penalty.

- 1a Explain Sustainable Materials in your understanding and two evaluation criteria to choose sustainable materials. (5 marks)
- 1b Explain any three (3) Sustainable Materials listed below: (12 marks)
Cork, Bamboo, Adobe, Hemp, and Recycled Plastics.
- 1c Write extensively on either Passive Design strategy or Active Design strategy in Sustainability. (8 marks)
- 2a Complete this diagram and give the meaning of each labelled number. (9 marks)



- 2b Explain the problems that led to the modern term called Sustainability. (6 marks)
- 3a Explain Life Cycle Assessment (LCA). (3 marks)
- 3b Explain any three (3) R's of Sustainable Design with example(s). (12 marks)
- 4a Explain any two (2) of the following underlisted Sustainable design projects: (12 marks)
The Pixel Building, The Heritage Place, The Stanbic IBTC Bank, and The Bullitt Center.
- 4b Why would a project be regarded as a Sustainable project from your observation of the projects listed above? (3 marks)
- 5a What do you think are the 4 reasons there are green building certification systems? (10 marks)
- 5b Mention with their full names Five (5) green building certification system. (5 marks)
- 6a Explain the strategies employed in reducing water consumption in buildings. (9 marks)
- 6b Mention three (3) importance of energy efficiency in buildings. (6 marks)