PAPUA NEW GUINEA UNIVERSITY OF TECHNOLOGY
THE DEPARTMENT OF ARCHITECTURE AND CONSTRUCTION MANAGEMENT

SECOND SEMESTER EXAMINATION

SECOND YEAR BACHELOR IN ARCHITECTURE & CONSTRUCTION MANAGEMENT

AR223 – BUILDING SYSTEMS II

Room: ST1

Date: Tuesday 24th October 2023

Duration: 3 hours

Time: 8:20 am to 12:00pm

Information to candidate

1. You have 10 minutes to read the paper. Do not begin writing during this period.
2. Fill the attendance slip with your name and student I.D. number now.
3. There are two pages to this exam paper including the cover page.
4. There are eleven questions and you are to answer all the questions.
5. ALL ANSWERS MUST BE WRITTEN IN THE ANSWER BOOK(S) PROVIDED.
6. Each Question must be answered stating on a New Page.
7. Notes, Textbooks and Electronic devices are **NOT ALLOWED** I the exam Room.

WRITE YOUR NAME AND ID NUMBER CLEARLY ON THE FRONT PAGE. DO IT NOW.

TOTAL MARKS = 100 MARKS

Question 1: **(8 Marks)**

A building construction site is considered as a temporary factory that employs resources to successfully fulfil a contract.

Draw and illustrate diagrammatically the building construction site based on the above statement. You are required to label and specify the activity processes that take place on a construction site for its manpower, materials, plants and money.

Question 2: **(4 Marks)**

State and explain briefly the term "Integrated Design"?

Question 3: **(6 Marks)**

State the three (3) emphases of a good design ethics?

Question 4 **(8 Marks)**

State the basic types of receptacles commonly used in disposing and collecting building waste?

Question 5: **(2 Marks)**

Name the two basic types of rigid, linear structural elements?

Question 6: **(5 Marks)**

State the five categories of proprietary product specification by name.

Question 7: **(14 Marks)**

State and explain the seven basic loads that the foundations support.

Question 8: **(9 Marks)**

State and describe the three types of settlements that occur in building foundation.

Question 9: **(8 Marks)**

State and explain the two types of ground water control systems.

Question 10: **(24 Marks)**

State and explain the four types of seismic wave effects?

Question 11: **(12 Marks)**

State and explain the building reactions that occur from ground motion?

End of Exam