



FACULTY OF ENGINEERING
END OF SEMESTER EXAMINATIONS - APRIL 2025

PROGRAMME: BACHELOR OF CIVIL ENGINEERING

YEAR/SEM: YEAR 2/SEMESTER 2

COURSE CODE: BCE2204

NAME: CONSTRUCTION TECHNOLOGY II

DATE: 2025-04-17

TIME: 9:00AM-12:00PM

INSTRUCTIONS TO CANDIDATES:

1. Read the instructions very carefully
2. The time allowed for this examination is STRICTLY three hours
3. Read each question carefully before you attempt and allocate your time equally between all the Sections
4. Write clearly and legibly. Illegible handwriting cannot be marked
5. Number the questions you have attempted
6. Use of appropriate workplace examples to illustrate your answers will earn you bonus marks
7. Any examination malpractice detected will lead to automatic disqualification.

DO NOT WRITE ANYTHING ON THE QUESTION PAPER

Section A • The examination consists of Eight (8) questions • Attempt Three (3) questions in section A and Two (2) questions in section B for full marks. • Begin each question on a fresh page • All questions carry equal marks • Do not write on the question paper. All rough work MUST be done on the official answer booklet.

Question 1:

One of the common flooring materials used in building construction is concrete. Concrete is usually placed when in its liquid state. Care needs to be taken when such concrete is being placed in its formwork or floor.

- a) Describe the methods that can be used during concrete works under the following themes.
 - i. Mixing of concrete
 - ii. Transportation of concrete
 - iii. Compaction of concrete
 - iv. Curing of concrete. **(4 marks @)**
- b) Differentiate between flooring methods used for water closet areas and common floors. Why are they different? **(4 marks)**

Question 2:

- a) Describe the different types of flooring materials generally used in building construction works and their application. **(15 marks)**
- b) What are the *ten (10)* different factors that must be considered in choosing the type of flooring materials described above? **(05 marks)**

Question 3:

- a) Define a window and state the functions of a window in relation to building **(08 marks)**
- b) Describe the different methods of finishing used for doors and windows. **(06 marks)**
- c) Define ironmongery and explain the different ironmongeries used for doors and windows. **(06 marks)**

Question 4:

- a) Using sketches where necessary, describe the different forms of pitched roof commonly used in building construction. **(12 marks)**
- b) With the aid of sketches, describe the design of trusses.
 - i. To supporting water tank
 - ii. Connecting to chimney **(4 marks@)**

Section B • The examination consists of Eight (8) questions • Attempt Three (3) questions in section A and Two (2) questions in section B for

full marks. • Begin each question on a fresh page • All questions carry equal marks • Do not write on the question paper. All rough work MUST be done on the official answer booklet.

Question 1:

- a) a) Staircases can be categorized as straight, turning and continuous. Discuss the various examples of turning type of staircases commonly used in residential building units. **(10 marks)**
- b) b) As a construction technology student, express your understanding of reinforced concrete staircases, highlighting on the various methods of its construction and why its better than the rest of the materials used in staircases. **(10 marks)**

Question 2:

- a) Applying the knowledge obtained in building construction lectures and field practical experiences, share your views on the different roofing materials commonly used in Uganda. **(10 marks)**
- b) Discuss any five methods used for waterproofing on flat roofs. **(10 marks)**

Question 3:

- a) Explain the functional requirements of a good door. **(08 marks)**
- b) Describe the classification of doors of buildings based on their movement **(12 marks)**

Question 4:

Refer to one of the practical assignments you performed on identifying painting defect during the construction technology course engagement.

- a) a) Describe the challenges that you faced during the data collection process. How would you improve on the challenges faced to obtain reliable data on the defects? **(10 marks)**
- b) b) What defects on painting did you identify? What suggestions did you make to correct the defects? **(10 marks)**