

FACULTY OF ENGINEERING END OF SEMESTER EXAMINATIONS - APRIL 2025

PROGRAMME: BACHELOR OF CIVIL ENGINEERING

YEAR/SEM: YEAR 1/SEMESTER 1

COURSE CODE: BCE1105

NAME: ENGINEERING PROFESSIONAL & SOCIETY

DATE: 2025-02-23

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 IN SECTION A: ANSWER 3 QUESTIONS. EACH QUESTION IS 20 MARKS

Question 1:

Outline the advantages and disadvantages of using private sector construction professionals in a construction industry in implementing projects. (20marks)

Question 2:

Trace the general path of development of the Construction industry and profession from industrial revolution to date citing examples along the way. (20marks)

Question 3:

List and explain the activities subjected to a candidate aspiring for getting registered by the Engineer registration board during pupilage experience and higher responsibility experience in Uganda. (20 marks)

Question 4:

- (a) What do you understand by the term tendering and bidding? (4 marks)
- (b) List seven documents that make up a tender during bidding process of a civil engineering project. (7 marks)
- (c) Give reasons why a civil engineering consultant would include the following documents during tendering;
 - (i) Drawings (3marks)
- (b) Bill of quantities (3 marks)

(c) Site visit certificate (3marks)

Section B IN SECTION B: ANSWER 2 QUESTIONS. EACH QUESTION IS 20 MARKS

Question 1:

Explain the professional functions of the quantity surveyors, land surveyors and Architects in a construction profession concept. (20 marks)

Question 2:

Discus the following methods used by the engineers in solving engineering problems;

(a) Analytical methods (10 marks) (b) Scientific methods (10 marks)

Question 3:

Risk assessment is a process that allows the contractor to put in place a proactive policy of managing work place risks. Hazard is a condition or object with the potential of causing injuries or death to personnel, damage to equipment or structures or loss of materials.

(a) Explain the steps of risk assessment process.(b) Explain the safety work cycle in a construction environment (10 marks)

Question 4:

(a) Define the word integrity as used in engineering ethics and give examples that exhibit integrity in construction world. (10 Marks)

(b) Explain what you understand as a professional Engineer. (10 marks)