

UNIVERSITY OF EDUCATION, WINNEBA INSTITUTE FOR TEACHER EDUCATION AND CONTINUING PROFESSIONAL DEVELOPMENT (ITECPD) END OF SECOND SEMESTER EXAMINATIONS, OCTOBER, 2024



COURSE CODE: JBH 243

COURSE TITLE: CONSTRUCTION TECHNOLOGY I

TIME ALLOWED: 2 HRS

STUDENT'S INDEX NUMBER:

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GENERAL INSTRUCTIONS:

- This paper is made up of ONE SECTION.
- The Section is made up of five essay type questions.
- Answer any THREE questions in your answer booklet.
- Each question carries equal marks. You are expected to start each question on a new page.
- You are expected to hand over your answer booklet to the invigilator before you leave the examination hall.

Instruction: Answer any three (3) questions in the answer booklet provided.

Q1

- (a) Briefly describe the uses of the following types of cement
 - i. Ordinary Portland cement
 - ii. Rapid-hardening Portland cement:
 - iii. Low heat Portland cement:
 - iv. Quick-Setting Cement

(8 marks)

(b) What do you understand by land development?

(2 marks)

(c) as a building engineer, briefly outline any four challenges of land acquisition in Ghana (4 marks)

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(d) Describe any three cutting tools used in construction and give one use of each

(6 marks)

Q2

- A. You have been asked by your head Teacher to lead a group of construction students to mould blocks for the construction of a urinary pit. Briefly describe step by step how a block is moulded in the workshop.

 (8 marks)
- B. Outline and explain the activities involved in the production of concrete
 (12 Marks)

Q3

- A. You have been contacted by a prospective client on how to develop his piece of land. As an expert, briefly take him through the processes involved in developing the land (10 marks)
- B. State and explain any three (3) methods of curing concrete after production (6marks)
- C. List four (4) ways by which concrete can be transported after production
 (4) marks

Q4

- A. As contractor, briefly outline any three sources by which you can obtain your fine Aggregates for your construction work.

 (6 marks)
- B. Write brief notes on the following personnel in the construction team:
 - (i) Architect
 - (ii) Contractor
 - (iii) Sub-contractor

(6 marks)

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- C. Briefly outline four main ways by which an individual can have ownership to a piece of land in Ghana (4 marks).
- D. As a building contractor, describe four qualities that a good coarse aggregate must possess before it is used in concrete works.

 (4 Marks)

Q5

- A. What do you understand by the term Binding agents? (2 marks)
- B. Mention any three (3) binding agents used in the mixing of mortar and concrete on the construction site.

 (3marks)
- C. Briefly state five (5) advantages that precast concrete has over mass concrete on the construction site

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