



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**SCHOOL OF ENGINEERING AND TECHNOLOGY**

**UNIVERSITY EXAMINATION FOR THE DEGREE IN SCIENCE IN  
CONSTRUCTION MANAGEMENT**

**1<sup>ST</sup> YEAR 1<sup>ST</sup> SEMESTER 2023/2024 ACADEMIC YEAR**

**CENTRE: MAIN CAMPUS**

---

**COURSE CODE: TCB 1103**

**COURSE TITLE: HISTORY OF CONSTRUCTION**

**EXAM VENUE:**

**STREAM: BSc. CONSTRUCTION MGT**

**DATE: /12/2023**

**EXAM SESSION:**

**DURATION: 2 HOURS**

---

**Instructions**

- 1. Answer question 1 (Compulsory) and ANY other two questions**
- 2. Candidates are advised not to write on question paper**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room.**

### QUESTION ONE (30 MARKS)

- a. Explain the following terminologies associated with the historical development of the construction industry **(10 Marks)**.
  - i. Macadam
  - ii. Cable stayed bridge
  - iii. Skyscraper
  - iv. Dovetail construction technique
  - v. Construction
- b. Discuss key issues that have shaped the evolution of the bridge technology **(6 Marks)**.
- c. Highlight two definitions of management as a profession **(2 Marks)**.
- d. Trace the evolution of construction labour from the 12th Century **(8 Marks)**.
- e. Briefly state major social concepts that ancient architecture was associated with **(4 Marks)**

### QUESTION TWO (20 MARKS)

- a. Briefly explain the origins of the early tar road **(4 Marks)**.
- b. Discuss the historical contribution of Tresquet, a French to the road construction system **(12 Marks)**.
- c. Discuss how Telford, a Scottish surveyor and engineer improved on Tresquet's road construction technique **(4 Marks)**.

### QUESTION THREE (20 MARKS)

The discovery of steel as a construction material revolutionized the construction industry.

- a. Discuss the historical development of steel as a construction material **(10 Marks)**.
- b. Highlight the significant contribution of the invention of steel to the construction industry at large **(5 Marks)**.
- c. State properties of steel that gives it prominence in the construction industry **(3 Marks)**
- d. Highlight the short comings of steel as a construction material **(2 Marks)**

### QUESTION FOUR (20 MARKS)

- a. Briefly define the following terms applied as styles in ancient architecture **(4 Marks)**.
  - i) Romanesque
  - ii) Gothic
- b. Briefly discuss the features of architectural styles mentioned in question (a) above **(8 Marks)**.
- c. Historical concept of tall buildings founded in America from 1849 has immensely contributed to the contemporary high-rise buildings that dot global sky lines.

- i) Highlight the concept of these tall buildings as they were historically known and the architect who was behind the innovation. (4 Marks).
- ii) State the historical innovations that facilitated this concept (4 Marks).

**QUESTION FIVE (20 MARKS)**

- a. Briefly state what materials of construction were used in construction before the advent of manufactured materials **(4 Marks)**.
- b. How did the historical shelters of the Aborigines compare with the historical African hut? **(6 Marks)**.
- c. Discuss the technologies of construction that were employed in the City of Manitoba with respect to log and light wood frame construction **(10 Marks)**.