



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF ENGINEERING AND TECHNOLOGY

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

1ST YEAR 1ST SEMESTER 2017/2018 ACADEMIC YEAR

CENTRE: MAIN CAMPUS

COURSE CODE: TCM 3112

COURSE TITLE: HISTORY OF CONSTRUCTION

EXAM VENUE: LR 2

STREAM: BSc CONSTRUCTION MGT

DATE: 14/12/2017

EXAM SESSION: 9.00 – 11.00AM

DURATION: 2.00 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 (30MARKS)

- a. Define the following terminologies associated with the historical development of the construction industry **(10marks)**.
 - i. Pozzolana
 - ii. Girder bridge
 - iii. Dove tail joint
 - iv. Project management
 - v. Macadam
- b. Trace evolution of construction labour relations beginning from early 12th century **(8marks)**.
- c. Name pioneer neo-classical theorists and what management ideals they stood for **(6marks)**.
- d. Discuss key issues that have historically shaped the evolution of bridge technology **(6marks)**.

QUESTION TWO (20MARKS)

- a. Briefly state key functions of architecture in the ancient era **(4marks)**.
- b. The historical development of architecture was associated with landmark styles. Discuss the major features of romanesque, gothic, baroque and rococo movements that stood significant in historical development of architecture **(16marks)**.

QUESTION THREE (20MARKS)

- a. Briefly explain the scientific invention that led to evolution of the early road? **(4marks)**.
- b. Discuss the origin of toll roads as a strategic way of maintaining roads? **(8marks)**.
- c. The Romans are historically known for their prowess in road construction. Discuss the major features of the first Roman road **(8marks)**.

QUESTION FOUR (20MARKS)

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

- a. Discuss the historical development of steel as a construction material **(10marks)**.
- b. Highlight the significant contribution of the invention of steel to the construction industry at large **(10marks)**.

QUESTION FIVE (20MARKS)

The ancient City of Manitoba was known for the development of various construction materials and techniques.

- a. Discuss the construction materials employed by the early man prior to the advent of manufactured building materials **(8marks)**.
- b. How do the early shelters compare with the indigenous shelters in western Kenya in terms of construction materials and techniques? **(4marks)**.
- c. Discuss the various timber construction techniques developed during this era in the City of Manitoba **(8marks)**.