



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF ENGINEERING AND TECHNOLOGY
UNIVERSITY EXAMINATIONS FOR THE DEGREE IN CONSTRUCTION MANAGENT
4TH YEAR 1ST SEMESTER 2018/2019 ACADEMIC YEAR
CENTRE: MAIN CAMPUS

COURSE CODE: TCM 3413

COURSE TITLE: MAINTENANCE AND REHABILITATION

EXAM VENUE: STREAM: BSc CONSTRUCTION MGT.

DATE: ../12/2018 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 (30Marks)

- a. Differentiate between destructive and non-destructive tests giving two examples of destructive tests. (4 Marks)
- b. Discuss the objectives of maintenance of structures (6Marks)
- c. Differentiate the following terms (8 Marks)
 - i. Maintenance
 - ii. Repair
 - iii. Rehabilitation
 - iv. Restoration
- d. Discuss the four types/classification of concrete repair (6Marks)
- e. Discuss any four Non Destructive test methods (6 Marks)

QUESTION TWO (20Marks)

- a. Discuss the various aspects of a structure that will be inspected in order to carry out repairs (10Marks)
- b. Define and Distinguish shotcreting and jacketing (4 Marks)
- c. List and discuss any four causes of deterioration in concrete (6Marks)

QUESTION THREE (20Marks)

- a. List and discuss six techniques of concrete repair (12 Marks)
- b. Cracks are classified into two types, discuss (2 Marks)
- c. Differentiate between cracking and spalling (2Marks)
- d. List the stages of concrete repair process (4Marks)

QUESTION FOUR (20Marks)

- a. Define the following:
 - I. Tenancy agreement
 - II. estate management
 - III. Restrictive Covenant (6Marks)
- b. Property management is the control and organization of property life cycle. From this definition discuss the function/activities of a property Manager (14 Marks)

QUESTION FIVE (20Marks)

- a. Define the term cost-in use (2 Marks)
- b. List and discuss briefly the various categories of building related costs (14Marks)
- c. Discuss the history of estate management (4Marks)

END