



# MACHAKOS UNIVERSITY COLLEGE

(A Constituent College of Kenyatta University)  
University Examinations for 2014/2015

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

EXAMINATION FOR CERTIFICATE IN CONSTRUCTION TECHNOLOGY

BCE: BT 105: CONSTRUCTION MANAGEMENT

DATE: 7/4/2015

TIME: 3 HRS

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## *Instructions*

- *This paper consists of five questions*
- *Answer question one (compulsory) and any other two questions*
- *Maximum marks for each part of a question are as shown*

## SECTION A (30 MARKS)

1. a) (i) Define the following terms:-
  - i) Workshop
  - ii) Building site (4 marks)
- (ii) Explain the meaning of a materials transfer note and how it is used in relation to a workshop or site (5 marks)
- b) i) Explain the term market in terms of availability and distance. (4 marks)
- ii) What are county plan zones? Explain basing your answer on divisions in the county towns (3 marks)
- c) i) Draw a site plan for a proposed building and indicate positions for the following construction materials to produce the most effective site.
  - Sentry box

- Site office
- Workers huts
- Canteen
- General stores
- Building stores (12 marks)

ii) Explain the term multi-handling in relation to materials control.(2 marks)

2. a) Explain the following terms as used in materials control;\_

- i) Goods received note
- ii) Order form
- iii) Requisition form (12 marks)

b) Explain three regulations governing a workshop design (4 marks)

c) Explain an invoice note and how it is applied in the purchasing of materials in a workshop or site

3. a) Draw the following receipts as referred to when ordering materials and fill all the required details.

- i) Delivery note
- ii) Materials return note
- iii) Advice note (12 marks)

b) explain why it is necessary to have watchmen on site and show how to determine the number required in a given site (4 marks)

c) List four disadvantages of having excessive stock of materials in a building site.

(4 marks)

4. a) Explain how the following materials should be stored in a building site or workshop.

- i) Cement and lime
- ii) Sand and ballast
- iii) Timber
- iv) Reinforcement bars (8 marks)

b) Explain the three factors considered when storing materials in a building site or workshop (6 marks)

- i) Cement and lime

- ii) Sand and ballast
  - iv) Timber
  - v) Reinforcement bars (8 marks)
  - b) Explain the three factors considered when storing materials in a building site or workshop (6 marks)
  - c) Waste materials in a building site at time becomes a problems. Explain 3 methods of reducing wastage (6 marks)
5. A)i) State four essential requirements of a workshop (4 marks)
- ii) State four precautions that should be taken in order to minimize theft on a construction site. (4 marks)
- b) State 4 advantages of perpetual inventory systems (4 marks)
- i) State and explain 4 requirements for each of the following provisions in the factories act.
- i) Health
  - ii) Welfare
  - iii) Safety
- c) i) Explain the essential services that should be in a building site. (2 marks)
- ii) Explain a materials transfer note and how it is used in a workshop or site. (3 marks)