



MACHAKOS UNIVERSITY COLLEGE

(A Constituent College of Kenyatta University)

University Examinations for 2015/2016

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

END OF SEMESTER I EXAMINATION FOR CERTIFICATE IN BUILDING TECHNOLOGY

PAPER NO: BCE BT 210

NAME: GBC II

DATE _____

TIME: _____

INSTRUCTIONS

This paper comprises of five questions.

*Question **ONE** is **compulsory** and carries 30 marks.*

*Answer **ANY** other two questions.*

All dimensions are in millimeters.

Maximum marks for each part of question are as indicated.

Q1. (a) (i) Explain the following terms as used in cold water supply

-Main, goose neck, Boundary, Tapping, Storage cistern

(5marks)

(ii) With the aid of a neat labeled sketch, illustrate the indirect cold water system for a two storey house having a WC wash hand basin and kitchen sink in the ground floor and, WC, bath and wash hand basin in the first floor.

(10marks).

(b) (i) Sketch and label a section through a filled soak away pit.

(5marks)

(ii) Identify three causes of smoky chimneys

(3marks)

(iii) With the aid of a neat labeled sketch, illustrate the direct hot water system. (7 marks)

Q2. (a) State two advantages and two disadvantages of the indirect cold water system. (4marks)

(b) With the aid of a neat sketch, illustrate how two storage tanks are inter-connected to facilitate removal of one without interruption of water supply to the building. (10 marks)

(c) With the aid of sketches, show two methods of placing hearths located on the dividing wall of two adjacent parties. (6 marks)

Q3. (a) Explain the following terms as used in hot water supply; cold feed, primary circuit, dead leg, secondary circuit, feed and expansion cistern. (5marks)

(b) (i) Explain the term water hardness. (2marks)

(ii) State three effects of temporary hardness in a hot water system. (6 marks)

(c) (i) Identify the two types of sounds (2marks) .

(ii) State five desirable properties of sound insulating materials. (5 marks)

4 (a). Sketch and label a section through a chimney showing the construction details. (8marks)

(b) Explain use and location of the following drainage components;
-Rain water shoe, Bank inlet gulley, trapped yard gulley, trapless yard gulley (4marks)

(c) Draw a section through a petro-interceptor showing the construction details (8marks)

5. (a) With the aid of a neat labeled sketch, illustrate the layout of the separate system of drainage below ground for a simple house. (10 marks).

(b)(1) Identify five types of fuels used for heating water. (5marks)

(ii) Explain the term heat insulation as used in hot water system. (3marks)

(iii) Identify four properties of heat insulating materials. (2marks)



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SECOND SEMESTER EXAMINATION FOR CERTIFICATE IN BUILDING

CONSTRUCTION TECHNOLOGY

BCE BT 106: ENTREPRENEURSHIP I

Date: 8/8/2016

Time: 8.30-10.30 AM

INSTRUCTIONS:

Answer question one and any other two questions

QUESTION ONE

- a) Define the following terms:
 - i. Entrepreneurship
 - ii. Entrepreneur
 - iii. Self employment (6 marks)
- b) Explain five sources of motivation for people to become self-employed. (5 marks)
- c) With reference to your home area, explain four ways in which the government is encouraging people to become entrepreneurs. (8 marks)
- d) Identify five characteristics of entrepreneurs. (5 marks)
- e) Enumerate six reasons why self employment is important to the individual (6 marks)

QUESTION TWO

- a) Explain six roles of an entrepreneur in his/her business (6 marks)

- b) Identify four types of business information, stating one source of each type of information (8 marks)
- c) Explain the following terms with regard to sources of business finance;
- Equity financing
 - Lending Institution. (6 marks)

QUESTION THREE

- a) i) Define the following terms ;
- I. Business idea
 - II. Business opportunity. (2 marks)
- ii) Identify six sources of business ideas. (6 marks)
- b) Explain four factors to be considered by an individual before venturing into self employment. (4 marks)
- c) Explain briefly how a business can affect the family. (4marks)
- d) Differentiate the terms: market and customer. (4 marks)

QUESTION FIVE

- a) Explain six ways in which an entrepreneur contributes to the development of a country. (12 marks)
- b) Identify four factors to be considered while selecting sources of business finance (8 marks)

QUESTION FIVE

- a) Briefly explain the three forms of business ownership. (6 marks)
- b) i) Explain three types of technology . (6 marks)
- ii) Identify the factors to be considered when selecting the types of technology to use. (3 marks)
- c) Identify five causes of business failure. (5 marks)