



**TECHNICAL UNIVERSITY OF MOMBASA**

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FACULTY OF ENGINEERING AND TECHNOLOGY  
DEPARTMENT OF BUILDING & CIVIL ENGINEERING  
**UNIVERSITY EXAMINATION FOR:  
INSTITUTION BASED PROGRAMME**

BACHELOR OF TECHNOLOGY IN CIVIL ENGINEERING

**BFT 4204: ECONOMICS & ACCOUNTING FOR ENGINEERS/TECHNOLOGISTS**

END OF SEMESTER EXAMINATION

**SERIES: AUGUST 2017**

**TIME: 2 HOURS**

**Instructions to Candidates**

You should have the following for this examination

*-Answer Booklet, examination pass and student ID*

This paper consists of five questions.

Attempt question ONE (Compulsory) and any other TWO questions.

**Do not write on the question paper.**

**QUESTION ONE (COMPULSORY) 20 Marks**

- (a) Explain the concept of diminishing marginal utility, with the aid of schedules and graphs, and state its applications and limitations. (12 marks)
- (b) Explain the law of scarcity and its implications in economics (8 marks)

**ANSWER ANY TWO QUESTIONS FROM THIS SECTION**

**QUESTION TWO (20 Marks)**

- (a) With the aid of a schedule and graph, explain the law of Demand and state the factors that influence it. (10 Marks)
- (b) Explain how the market price of a commodity is determined, with the aid of demand and supply curves. (10 marks)

**QUESTION THREE (20 Marks)**

(a) Distinguish between the movement along demand and supply curves and the shift of the curves (10 marks)

(b) Explain the price fluctuations of agricultural produces with seasons – (Dry season and wet season) (10 marks)

**QUESTION FOUR (20 Marks)**

(a) Outline the general aspects of costing construction plant. (6marks)

(b) A 1.5m<sup>3</sup> mechanical shovel was purchased at sh.18m and has an estimated salvage value of sh. 6m after six years of use. Determine the cost of 1m<sup>3</sup> of basement excavation using the plant. Assume any other necessary information. (14 marks)

**QUESTION FIVE (20 Marks)**

Cantilever limited was awarded a contract to build an office block in Marsabit and commenced work on 1<sup>st</sup> May 2016.

During the period to 30<sup>th</sup> Dec 2016, the end of the company's financial year, the expenditure on the contract was as follows:-

Materials issued from stores	3,250,000.00
Material purchased	4,750,000.00
Direct expenses	1,500,000.00
Wages	1,800,000.00
Administration expenses	1,200,000.00
Plant and machinery purchased for site use	3,500,000.00
Stock of materials on site	2,000,000.00
Amount outstanding for wages	720,000.00
Certificate 1,II,&IV received after deducting 10% retention	14,500,000.00

**Note:**

Plant and machinery has an affective life of 5years with no residual value.

Prepare the contract account for the period to Dec 30- 2016 and show your calculation of the profit to be taken to the credit of the company's profit and losses account in respect of the work covered in certificate 1, II & IV