TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF BUILDING & CIVIL ENGINEERING
UNIVERSITY EXAMINATION FOR:
BACHELOR OF SCIENCE IN CIVIL ENGINEERING

BFT 4204: ECONOMICS & ACCOUNTING FOR ENGINEERS/TECHNOLOGISTS

END OF SEMESTER EXAMINATION
SERIES: JULY 2017
TIME: 2 HOURS
DATE: 15 Dec 2016

<u>**Instructions to Candidates**</u>
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)
(a) Explain the following concepts as relates economics:-
    (i)   Specialization
    (ii)   Economies of scale
    (iii)   Diminishing marginal returns
    (iv)   Planned economy in contrast to market economy
    (v)   Consumer sovereignty   (10 marks)

(b) Outline the factors that influence the supply curve and with the aid of schedules and curves explain the supply curve (10 marks)

(c) Ex plain the basic principles underlying depreciation of plant, and with the aid of hypothetical example outline the Declining balance method of depreciation. (10marks)

QUESTION TWO

(a) Explain the utility concept as applied in economics.   (5 marks)

(b) With the aid of appropriate schedules and a corresponding curve, explain the law of Diminishing marginal utility   (9 marks)

(c) Discuss the applications and limitations of the law of diminishing marginal utility (6 marks)

QUESTION THREE

Determine the cost of concrete (1:1 1/2: 3), produced using a NT drum concrete mixer (2006), purchased at a price of Ksh. 1.8m and having a resale value of Ksh. 8m after four years of use. The cost of I bag of cement is Ksh. 720, Coarse aggregates cost Ksh. 2;400m^3 and fine aggregate cost 1,600m^3. Assume any other necessary information (20marks)

QUESTION FOUR

(a) Distinguish between movements along demand and supply curves as opposed to movement of the curves   (8 marks)

(b) Use demand and supply curves to discuss the effect of:

   (i)   Price controls (minimum and maximum price controls) .
   (ii)   Increase of tax on petrol by 8%.
   (iii)   Limiting the numbers of Architects in the construction industry (12 marks)

QUESTION FIVE

   (a) Discuss the applications of ratio analysis in accounting   (5 marks)

   (b) Explain the following ratios used in accounting:
        (i)   Return on capital employed
        (ii)   Sales//fixed assets
        (iii)   Stock turnover
        (iv)   Liquid Assets/ current liabilities
        (v)   Fixed liabilities /Total assets   (15 marks)