

**W1-2-60-1-6**

**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2018/2019**

EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE

**HRD 2315: ECONOMICS FOR ENGINEERS**

**DATE: AUGUST 2019 TIME: 2 HOURS**

INSTRUCTIONS: ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER

TWO QUESTIONS

**QUESTION ONE: 30 MARKS**

a. The Central bank of Kenya has just released new notes and coins. You have realized that Mama Mboga has refused to accept them. Carefully explain to Mama Mboga why the new money is a medium of exchange. (10 marks)

b. i. Define the terms “feasibility studies”. (2 marks)

ii. What are some of the objectives of carrying out a feasibility study? (8 marks)

c. Some of the methods used in project appraisal are N.P.V. , I.R.R. and A.R.R. State the decision rules of these methods in accepting or rejecting a project. (4 marks)

d. What are some of the factors that a firm should consider when raising capital for long term projects? (4 marks)

**QUESTION TWO: 20 MARKS**

Suppose the demand and supply curve are represented by the following

functions:-

P= 10-0.02Q

P=1+0.01Q

a. Identify which function represents demand and supply respectively. (4 marks)

b. Determine equilibrium price and quantity. (4 marks)

c. Determine whether there is a shortage or surplus where price is Ksh. 5. (6 marks)

d. Illustrate your answer in (ii) above using a diagram. (6 marks)

**QUESTION THREE: 20 MARKS**

a. A marketer must be careful when segmenting a market for maximum impact. State factors that should be considered during this process.

(10 marks)

b. A marketing mix is important to any firm to be successful. Discuss the components of marketing mix. (10 marks)

**QUESTION FOUR: 20 MARKS**

a. A company has the following functions:-

15-0.5P and 3+2P

If the company sells 1000 units, calculate the total revenue. (4 marks)

b. Study the table below and answer the questions that follow:-

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Output | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Total cost | 20 | 35 | 53 | 75 | 97 | 115 | 130 | 144 |

i. Calculate the fixed cost. (2 marks)

ii. Draw columns for TC, AC, and MC at all levels of productions. (14 marks)