חAMIBIA UחIVERSITY
OF SCIEחCE AחD TECHחOLOGY

FACULTY OF HEALTH AND APPLIED SCIENCES

DEPARTMENT OF ACCOUNTING, ECONOMICS AND FINANCE

QUALIFICATION: BACHELOR OF ECONOMICS HONOURS DEGREE	
QUALIFICATION CODE: 08BECO	LEVEL: 8
COURSE CODE: AMI810S	COURSE NAME: ADVANCED MICROECONOMICS
SESSION: JUNE 2019	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 100

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER(S)	MR. PINEHAS NANGULA
MODERATOR:	MRS Ruth Eegunjobi

INSTRUCTIONS
1. Answer ALL the questions.
2. Write clearly and neatly.
3. Number the answers clearly.

PERMISSIBLE MATERIALS
1. Scientific calculator
2. Pen and Pencil
3. Ruler

THIS QUESTION PAPER CONSISTS OF _4_ PAGES (Including this front page)

QUESTION ONE [25 MARKS]

a) In early 2008, the price of oil on the world market increased, hitting a peak of about $140 per barrel in July 2008. In the second half of 2008, the price of oil declined, ending the year at just over $40 per barrel. Suppose that the global market for oil can be described by an upward sloping supply curve and a downward-sloping demand curve. For each of the following scenarios, illustrate graphically how the exogenous event contributed to a rise or a decline in the price of oil in 2008:

   i) A booming economy in China raised the global demand for oil to record levels in 2008.

[1 marks]

   ii) As a result of the financial crisis of 2008, the United States and other developed economies plunged into a severe recession in the latter half of 2008. [2 marks]

   iii) Reduced sectarian violence in Iraq in 2008 enabled Iraq to increase its oil production capacity. [2 marks]

b) Explain the difference between each of the following terms:

   i) a price consumption curve and a demand curve [2 marks]

   ii) an Engel curve and a demand curve [2 marks]

   iii) an income effect and a substitution effect [2 marks]

c) Explain the difference between a positive and a negative network externality and give an example of each. [4 marks]

d) Explain and discuss in detail the effect of a decrease in the cost of production on equilibrium price and quantity given the following information:

   i) Demand curve is perfectly inelastic, and supply curve is inelastic [5 marks]

   ii) Demand and supply curves are inelastic [5 marks]

Question Two [25 marks]

You have a choice to make between burritos (B) and pizza (Z), the price of burritos is N$10.00 and the price of pizza is N$5.00. Your utility function is $U(B,Z) = B^2Z^3$ and your income is N$800.00. If the price of pizza increases from N$5.00 to N$10.00, construct demand curve for burritos and pizza. Let pizza be on the x-axis. [25 marks]

Question three [25 marks]

John has the utility function $U(x, y) = Ax^{\alpha}y^{\beta}$, where x denotes the amount of food consumed and y the amount of clothing. Now suppose that he has an income of $72 per week and that the price of clothing is P_y = N$10 per unit. Suppose that the price of food is initially P_{x1} = N$25 per unit and that the price subsequently falls to P_{x2} =N$5 per unit.

Find the numerical values of the income and substitution effects on food consumption and graph the results.

Question Four [25 marks]

Alex is deciding whether to make a loan to Brian who is very poor and who has a bad credit history. Simultaneous to Alex making this decision, Brian must decide whether or not to buy gifts for his grandkids. If he buys gifts, he will be unable to repay the loan. If he does not buy gifts, he will repay the loan. If Alex refuses to give Brian a loan, then Brian will have to go to a loan shark.

If Alex refuses to make a loan to Brian and Brian buys gifts then both Alex and Brian get 0. If Alex refuses to make a loan to Brian and Brian does not buy gifts then Alex gets 0 and Brian gets -1. If Alex makes a loan to Brian and Brian buys gifts then Alex gets -2 and Brian gets 7. If Alex makes a loan to Brian and does not buy gifts, then Alex gets a payoff of 3 and Brian gets a payoff of 5.

a) Identify players in this game [4 marks]
b) What are their strategies [8 marks]
c) Construct the matrix with their payoff [8 marks]
d) Does the game have a dominant strategy and nash equilibrium? [5 marks]

All the best