NATIONAL OPEN UNIVERSITY OF NIGERIA
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF ECONOMICS
2017_2 EXAMINATION JANUARY/FEBRUARY 2018

COURSE TITLE: ADVANCED MICROECONOMICS
COURSE CODE: ECO 431
UNITS: 2
TIME ALLOWED: 2 HOURS

INSTRUCTION: ANSWER ANY THREE (3) QUESTIONS. ALL QUESTIONS CARRY EQUAL MARKS

1a. Differentiate between the following:

i. Microeconomics and macroeconomics **3 marks**
ii. Positive and normative economics **3 marks**
iii. Nominal and real prices**. 3 marks**

bi. Given the demand and supply functions: $Qd_x = 25-10P$ and $Qs_x = -5+3P$. determine the equilibrium price and quantity. **7 marks**

ii. $Qd_x = 41-1.5P_x+0.5P_x$, $Qs_x = -2.5+7.5P_x$, $Qd_y = 46+P_x-2P_y$ and $Qs_y = -3+16P_y$. determine the equilibrium prices and quantities. **7 marks**

2a. Assuming an increase in price from #10 to #15 led to a decrease in quantity demanded from 20 to 12units. Calculate: i. the elasticity of demand and interpret the result **8 marks**

ii. the price elasticity of demand. **8 marks**

b. If $P_1 = 5$, $P_2 = 7$, $Q_1 = 4$ and $Q_2 = 2$. Using the values given, calculate the Arc elasticity of demand **7 marks**

3. Explain the meaning of the following:

i. Production function **4 marks**

ii. Total product **4 marks**

iii. Marginal product **4 marks**

iv. Stages of production **7 marks**

v. Diminishing returns **4 marks**

4. Minimize the cost function $C = P_1X_1 + P_2X_2$ subject to the production function $Q = f(X_1, X_2)$. 23 marks

5a. Differentiate between the different types of price discrimination 11 marks

b. Consider an Oligopoly market with two firms A and B, facing the demand function: $P = 300 - 0.5Q$, suppose their cost functions are respectively $C_A = 4000 + 20Q_A + 0.2Q_A^2$ and $C_B = 3000 + 15Q_B + 0.25Q_B$. Derive the reaction functions of the firm and the profit maximizing equilibrium under Cournot Model. 12 marks