TAATIBIA UTIVERSITY
OF SCIEПCE AПD TECHחOLOGY
FACULTY OF MANAGEMEMNT SCIENCES
DEPARTMENT OF ACCOUNTING, ECONOMICS AND FINANCE

| QUALIFICATION: BACHELOR OF ECONOMICS |  |
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| QUALIFICATION CODE: <br> 07BECO | LEVEL: 7 |
| COURSE CODE: IMI611S | COURSE NAME: INTERMEDIATE <br> MICROECONOMICS |
| SESSION: JUNE 2022 | PAPER: THEORY |
| DURATION: 3 HOURS | MARKS: 100 |


| FIRST OPPORTUNITY EXAMINATION QUESTION PAPER |  |
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| MODERATOR: | MRS SHITENGA |

## 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

## 1. Which of the following is a normative statement?

a) A course in intermediate microeconomics improves scores on the LSAT (Law School Admissions Test).
b) Colleges that pay their football coaches more than their economics professors tend to win more football games.
c) Smoking restrictions on airline flights have reduced the number of respiratory-related illnesses.
d) Requiring all students to take at least one semester of Calculus is a bad idea.

Use the following information to answer the next four questions:

The demand for books is:
$Q^{D}=60-1 P$
The supply of books is: $\quad Q^{S}=20$
2. What is the equilibrium price of books?
a) 10
b) 20
c) 25
d) 40
3. What is the equilibrium quantity of books sold?
a) 25
b) 50
c) 40
d) 20
4. The price elasticity of demand at the market equilibrium is a
a) Inelastic.
b) Elastic.
c) Unitary elastic.
d) Inferior.
5. Suppose an individual spends all his income on only two goods, good $\mathbf{X}$ and good $\mathbf{Y}$. Moreover, suppose that you were asked to derive his price consumption curve for good Y. Which of the following would be allowed to vary?
a) Money income.
b) The tastes of the consumer.
c) The price of good X
d) The price good Y.
6. Suppose an individual spends all his income on only two goods, good $\mathbf{X}$ and good $\mathbf{Y}$. Moreover, suppose that you were asked to derive his price consumption curve for good X . Which of the following would be allowed to vary?
a) Money income.
b) The tastes of the consumer.
c) The price of good X
d) The price good Y .
7. The substitution effect refers to
a) the change in quantity demanded when the price of a substitute changes.
b) the change in quantity demanded resulting from a change in total satisfaction, holding relative prices constant.
c) the change in quantity demanded resulting from a change in relative prices, holding the level of satisfaction constant.
d) the percentage change in quantity demanded resulting from a one percent change in all prices.
8. The income effect of a price change
a) is always positive.
b) is always negative.
c) may be positive or negative.
d) is associated with a change in nominal income.
9. A market demand curve can be derived by adding all the individual demand curves
a) vertically.
b) horizontally.
c) in parallel.
d) Any of the above as long as it is consistent.
10. Some goods are not closely related to each other and are neither substitutes nor complements. For such goods, the cross-price elasticity of demand would be
a. positive.
b. negative.
c. zero.
d. Cannot tell without more information.

## SECTION B

## Question One

[30 marks]
a) What is the difference between microeconomics and macroeconomics?
b) Suppose the market for wheat is competitive, with an upward-sloping supply curve, a downward-sloping demand curve, and an equilibrium price of $\mathrm{N} \$ 4.00$ per kilogram. Why would a price of $\mathrm{N} \$ 8.00$ per kilogram and $\mathrm{N} \$ 3.00$ kilogram not be an equilibrium prices?
c) What is the difference between positive and normative analysis? Which of the following questions would entail positive analysis, and which normative analysis?
i) What effect will Internet auction companies have on the profits of local automobile dealerships?
ii) Should the government impose special taxes on sales of merchandise made over the Internet?
d) Explain why a situation of excess demand will result in an increase in the market price and why will a situation of excess supply result in a decrease in the market price? [8 marks]
e) Use supply and demand curves to illustrate the impact of the following events on the market for coffee:
i. The price of tea goes up by 100 percent.
ii. A study is released that links consumption of caffeine to the incidence of cancer. [1]
iii. A frost kills half of the Colombian coffee bean crop.
iv. The price of styrofoam coffee cups goes up by 300 percent.
f) What does the sign of the cross-price elasticity of demand between two goods tell us about the nature of the relationship between those goods?
[2 marks]

## Question Two

a) The demand for beer in Japan is given by the following equation: $Q_{d}=700-2 P-P_{N}+0.1 I$, where $P$ is the price of beer, $P_{N}$ is the price of nuts, and $I$ is average consumer income.
i. What happens to the demand for beer when the price of nuts goes up? Are beer and nuts demand substitutes or demand complements?
ii. What happens to the demand for beer when average consumer income rises?
iii. Graph the demand curve for beer when $\mathrm{P}_{N}=100$ and $I=10,000$.
b) Suppose that demand for bagels in the local store is given by equation $\mathrm{Q} \mathrm{d}=300-100 \mathrm{P}$. In this equation, P denotes the price of one bagel in dollars.
i. Fill in the following table
[10 marks]

| Price | 0.10 | 0.45 | 0.50 | 0.55 | 2.50 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Quantity <br> demanded |  |  |  |  |  |
| Price <br> elasticity of <br> demand |  |  |  |  |  |

ii. Plot this demand curve in a graph. Is it linear?
iii. At what price is demand unitary elastic?
iv. At what price is demand inelastic?
v. At what price is demand elastic?

## Question Three

The utility that Ann receives by consuming food $F$ and clothing $C$ is given by $U(F, C)=F C+$ F. Food costs $\mathrm{N} \$ 1$ a unit, and clothing costs $\mathrm{N} \$ 2$ a unit. Ann's income is $\mathrm{N} \$ 22$.
a) Ann is currently spending all of her income. She is buying 8 units of food. How many units of clothing is she consuming?
b) Graph her budget line. Place the number of units of clothing on the vertical axis and the
number of units of food on the horizontal axis.
c) Draw the indifference curve associated with a utility level of 36 and the indifference curve associated with a utility level of 72. Are the indifference curves bowed in toward the origin?
d) Using algebra, find the utility-maximizing choice of food and clothing.
e) What is the marginal rate of substitution of food for clothing when utility is maximized?

