YEAR 13 ECONOMICS
Supplementary Worksheet 5
MICROECONOMICS

1. An extra satisfaction derived by a consumer from consuming an additional unit of a good is
   A. utils.
   B. utility.
   C. total utility.
   D. marginal utility.

2. For total utility to be at its maximum, marginal utility has to be
   A. zero.
   B. increasing.
   C. at its minimum.
   D. at its maximum

3. The rate at which a consumer is able to substitute one good for another is determined by
   A. consumer's income.
   B. indifference map.
   C. ratio of the prices of goods.
   D. marginal rate of substitution.

4. An indifference curve shows combinations of two goods that
   A. a consumer could buy with their given income.
   B. could be available to the consumer in a given time period.
   C. could provide the consumer with similar levels of satisfaction.
   D. would provide the consumer with the same level of satisfaction.

5. When making purchases, consumers will try to
   A. always buy the cheapest goods.
   B. maximize their total satisfaction.
   C. buy until marginal utility is maximized.
   D. spend the same amount on everything they buy.

6. A profit-maximizing firm will hire labor until marginal revenue product equals
   A. total product.
   B. marginal cost.
   C. marginal product.
   D. price of the product.

7. The value of a good is defined as the
   A. price paid by an individual.
   B. cost of producing the good.
   C. highest price an individual is willing to pay.
   D. average price by individual in a market.

8. Supply is inelastic if
   A. the good is a normal good.
   B. the good is an inferior good.

C. a small percentage change in price causes a large percentage change in quantity supplied.
D. a large percentage change in price causes a small percentage change in quantity supplied.

9. The aggregate satisfaction gained from consuming successive quantities of a good is referred to as _____ utility.
A. marginal
B. optimum
C. public
D. total

10. A rational consumer will not consume past the point where the price of the last unit purchased is not greater than the opportunity cost of the money paid. This refers to the concept of
A. Equilibrium.
B. Price ceiling.
C. Optimal purchase rule.
D. Profit maximization.

Short Answer Questions

Consumer Theory

1. Aron and Daniel both received $20 pocket money per week. They spend it all on sandwich and pies at the school canteen. Daniel purchase six sandwich and two pies each week.

Quantity of sandwich	Price = $2		Quantity of pies	Price = $4	
	TUx	MUx		TUy	MUy
1	800	800	1	_____	800
2	_____	700	2	1 400	_____
3	_____	500	3	1 800	400
4	2 200	_____	4	2 000	200
5	2 300	100	5	_____	100

(i) Complete the table by calculating total utility and Marginal Utility for Sandwich and pies.
(ii) What is meant by the optimum purchase rules?
(iii) How many sandwich and pies Aron should purchase each week to maximize his total utility?

2. Suppose a consumer buys only two goods: Cassava and Chicken. Suppose further that his weekly income $200 and the price of Chicken is $10/kg while the price of Cassava is $4/kg.
Write an equation for the budget constraint.

3. The table below shows Christopher's utility when he consumes dalo.

Use the data and your knowledge to answer questions (i) to (iv).

Quantity (kg)	Total Utility (utils)	Marginal Utility (utils)
1	15	15
2	25	10
3	30	5
4	25	-5
5	18	**X**

(i) Calculate the value of **X** in the table.
(ii) When the price of dalo is **$5 per kg**, how many kilograms of Dalo will Christopher buy in order to maximize utility?
(iii) At how many kilograms of dalo does the Law of Diminishing Marginal Utility set in?
(iv) On the pair of axes provided in the Answer Book, construct the Total Utility (TU) and marginal Utility (MU) Curves. Label the curves.
(v) Explain the Law of Diminishing Marginal Utility.

4. Peter is able to consume the following bundles of bananas and oranges when the price of banana is $2 (bundle) and the price of oranges is $3 per unit.

Bananas	Oranges
12	0
6	**i**
ii	8

(i) Calculate Peter's money income.
(ii) Complete the table above by filling in parts (i) and (ii).
(iii) Construct a budget line on the graph.
(iv) State one assumption while deriving a budget line?

Marginal Productivity Theory

1. A garment factory is operating in Ba known as P. Chandra's Apparel. The firm is making dresses and selling at a price of $30 each. A worker is paid $210 as wages per week.

Number of Labour employed	Output per Week	MPP	Price of a dress ($)	Marginal Revenue Productivity	Wages
1	18	18	30	340	210
2	33	**(a)**	30	**(e)**	210
3	44	11	30	330	210
4	53	**(b)**	30	270	210
5	60	**(c)**	30	**(f)**	210
6	**(d)**	5	30	150	21

(i) Complete the table by filling in the blank spaces from (a) to (f).
(ii) How many workers should the firm hire?
(iii) List down two assumptions of Marginal Productivity Theory.

2. A garment factory is operating in Rakiraki known as Tip Top Apparel. The firm is making Bula shirts and selling at a price of $15 each. A worker is paid $225 as wages per week.

Number of labour employed	Output per week	MPP	Price of a Bula shirt	MRP	Wages ($)
1	36	36	15	540	225
2	67	(i)	15	(v)	225
3	87	20	15	300	225
4	105	(ii)	15	270	225
5	120	(iii)	15	(vi)	225
6	(iv)	10	15	150	225

(i) Complete the table by filling in the blank spaces from (i) to (vi).
(ii) How many workers should the firm employ?

Price Mechanism

1. Study the resources given and answer question (i.) – (iii.)
The following equations derive the supply and demand of shoes.
Price is measured in dollars ($).

$$Q=-2P+40$$
$$Q=4P+20$$

(i) Which equation denotes the demand curve? Justify your answer.
(ii) Use the equations to solve for equilibrium quantity (units) and price ($).

2. The market of Fijian Tabacco after cyclone is described by the following Supply and Demand Equations:

$$Qd = 120-P$$
$$Qs = 4P$$

[Where price is given in dollars ($) and quantity in kilogram (kg)]

(i) Define market equilibrium.
(ii) Solve for the equilibrium price and equilibrium quantity of Fijian Tabacco.

THE END