# PENANG SANGAM HIGH SCHOOL

## YEAR 13

## ECONOMICS

## WORKSHEET 2

**Question 1**  **Microeconomics**

Use the information given below to answer the question.

| Quantity consumed (cups of tea) | Total utility | Marginal utility |
|---|---|---|
| 1 | 20 | 20 |
| 2 | 35 | |
| | | 15 |
| 3 | 45 | |
| | | 10 |
| 4 | 50 | |
| | | 5 |
| 5 | 50 | |
| | | 0 |
| 6 | 45 | |
| | | -5 |

1. At what level of consumption will the consumer maximise utility if the price of a cup of tea is $5.                                    (1m)

2. State the **optimal purchase rule** using standard notations.        (1m)

3. **Differentiate** between total utility and marginal utility?            (1m)

**Question 2**

A garment factory in Rakiraki produces shirts and sells it at **$30** each.
Each worker's wage is **$90** per day.

| Number of labour employed | Output per week | MPP | MRP |
|---|---|---|---|
| 1 | 9 | 9 | 270 |
| 2 | 17 | 8 | 240 |
| 3 | 22 | **(i)** | 150 |
| 4 | 25 | 3 | **(ii)** |
| 5 | 26 | 1 | 30 |

(i) Calculate the missing values **(i)** and **(ii)**. (2 m)

(ii) How many workers should the firm hire? Give a reason for your answer.
(2 m)

(iii) In which **economic period** does the Law of Diminishing Returns sets in?
(1 m)

**Question 3**
Study the equations given below and your knowledge to answer the questions

$$Qd = 4000 - 2P$$
$$Qs = 3000 + 3P$$

(where price is given in dollars per USB and quantity in USB units)

i. **Equate** the equations to determine the **efficiency price and output** level? (2 m)

ii. **Draw and label** the demand and supply curves for USB on a pair of axis? (2 m)