

**SUVA GRAMMAR SCHOOL**

**YEAR 13**

**ECONOMICS**

**WORKSHEET 2**

**NAME** \_\_\_\_\_

**YEAR** \_\_\_\_\_

**OBJECTIVE**

- Explain the optimal purchase rule: Consumer Equilibrium.
- Use the optimal purchase rule to derive a person's demand curve.

**Summary notes**

The formula to calculate marginal utility is:

$$\text{MU} = \text{TU}_2 - \text{TU}_1$$

**Indifference Curve** – A curve that shows combinations of goods which gives the same level of satisfaction to the consumers so that an individual is indifferent.

**Equation of the Budget Line:**

$$I = P_X \cdot Q_X + P_Y \cdot Q_Y$$

Income = Expenditure

- $\text{MPP}_n = \text{TPP}_n - \text{TPP}_{n-1}$
- $\text{MRP} = \text{MPP} \times \text{Price of the Product}$

1. The aggregate satisfaction gained from consuming successive quantities of a good is referred to as \_\_\_\_\_ utility.
  - A. marginal
  - B. optimum
  - C. public
  - D. total
  
2. 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

3. 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.
4. A consumption point outside the budget line
- A. is unaffordable.
  - B. is possible to afford but has some unspent income.
  - C. shows that the consumer spends income on only one good.
  - D. shows that the consumer has chosen to spend all his or her income on both products.
5. Which of the following is not a property of Indifference curves?
- A. they do not intersect
  - B. they are negatively sloped
  - C. they are bowed towards the origin
  - D. they are in the place for everyone
6. When Total Utility is increasing at a diminishing rate, marginal utility is
- A. Increasing
  - B. Decreasing
  - C. Zero
  - D. Negative
7. Which of the following is **not** a characteristics of Indifference Curve
- A. Indifference curve Slopes downwards.
  - B. Indifference curve is Concave to Origin.
  - C. Indifference curve cannot intersect each other.
  - D. Higher Indifference curve represents higher level of satisfaction.

8. Use the diagram given below to answer question number 3

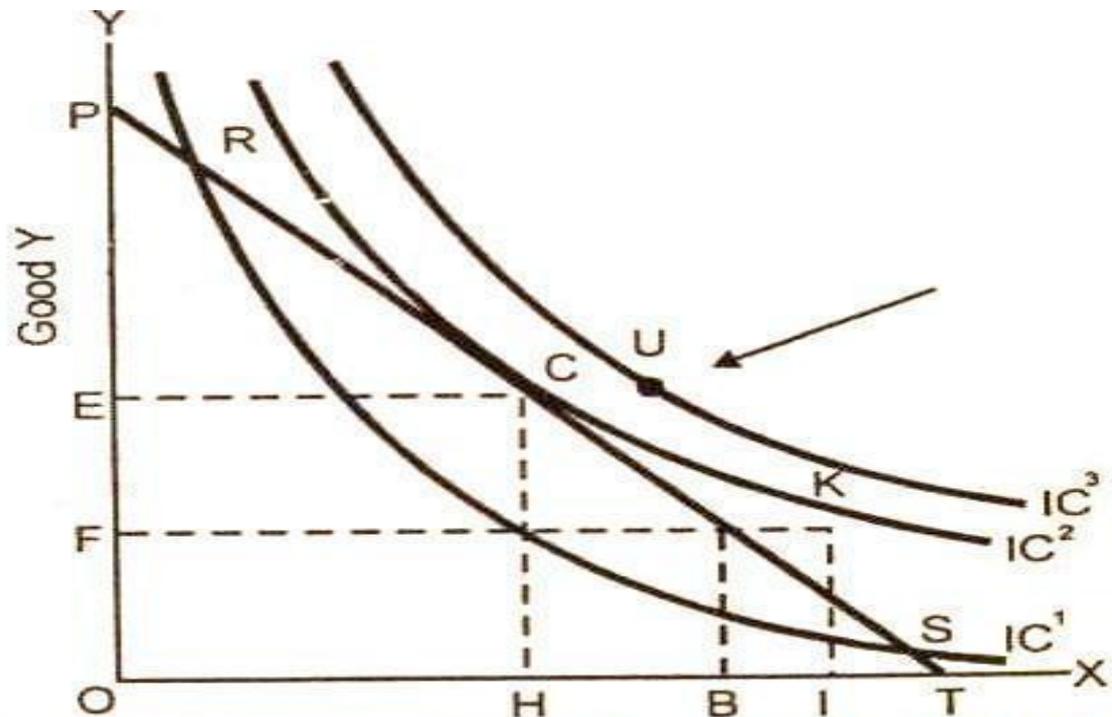


Fig. 3.11: Consumer's equilibrium through Indifference Curves

Which of the points on the above graph represents consumer equilibrium point?

- A. U
- B. C
- C. R
- D. S

**Question 2****Short Answer Questions****(14 Marks)**

(a) Use the information given below and your knowledge to answer the questions.

**Zebdial's Total utility and Marginal Utility for Custard Pies**

No. of units consumed (Custard Pies)	Total Utility	Marginal Utility
1	50	50
2	90	40
3	120	30
4	140	20
5	150	10
6	150	0

(i) Suppose the Custard Pie was free, how many units would Zebdial consume?

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**(1 mark)**

(ii) State the optimal purchase rule using standard notations.

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**(1 mark)**

(iii) Explain the **law of diminishing marginal utility**.

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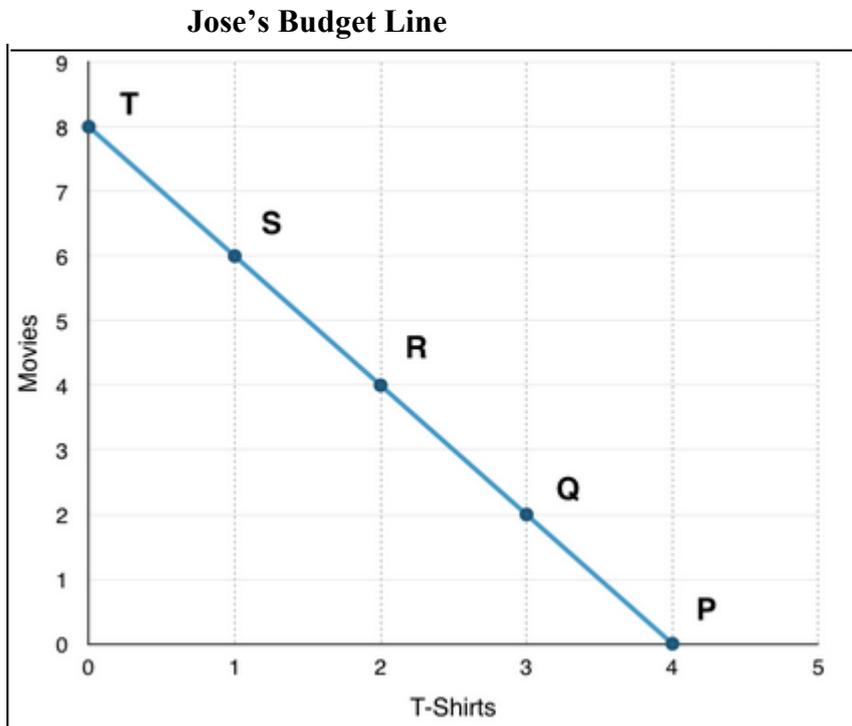
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**( 1 mark)**

### Question 3

Use the budget line given below to answer the questions that follow.

Jose is able to consume the following bundles of **T-Shirts** and **movies** when the price of **T-Shirts** is **\$14** and the price of **movies** is **\$7**.



(i) Calculate Jose's money income.

**(1 mark)**

(ii) Derive the equation of the budget line.

**(1 mark)**

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**Question 4**

A garment factory in Rakiraki produces shirts and sells it at **\$30** each.

Each worker's wage is **\$90** per day.

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

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

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

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**(2 marks).**

iii. Define the term 'Marginal Physical Product'? **(1 mark)**

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**The End**