

經 = 甲 林自云

No. A108260067

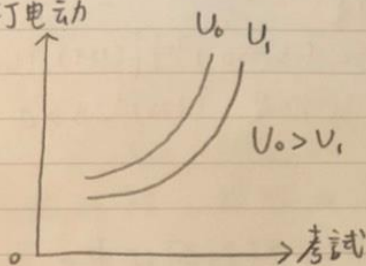
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國語期中考

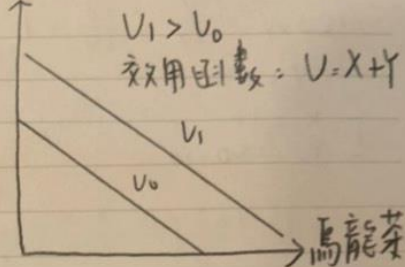
一
1~5 d c d a b
6~10 d c c a b
11~15 c b d c a
16 b

二

1. (A)
打電動



(B) 紅茶



(1) $300 = 20X + 10Y$ — (2)

$V = f(x, y) = X^{\frac{1}{3}} Y^{\frac{2}{3}}$

$MRS_{xy} = \frac{\frac{1}{3} X^{-\frac{2}{3}} Y^{\frac{2}{3}}}{\frac{2}{3} X^{\frac{1}{3}} Y^{-\frac{1}{3}}} = \frac{P_x}{P_y} = \frac{20}{10} = \frac{Y}{2X}$

(2) $\text{Max } U = f(x, y) = X + 3Y$

$20X + 10Y = 300$

$MRS_{xy} = \frac{1}{3} < \frac{P_x}{P_y} = \frac{20}{10} = \frac{2}{1}$

$X = 15, Y = 0$

$40X = 10Y \Rightarrow Y = 4X$

$\Rightarrow \begin{cases} X = 5 \\ Y = 20 \end{cases}$

(3) $\text{Max } V = f(x, y) = \min(X, 2Y)$

$300 = 20X + 10Y$

$2X = Y$

$\Rightarrow \begin{cases} X = \frac{15}{2} \\ Y = 15 \end{cases}$

3. ① $\text{Max } V = f(x, y) = x^{\frac{1}{3}} y^{\frac{2}{3}}$
 $300 = 20x + 10y$
 $\rightarrow x = 5 \quad y = 20$

② $V = x^{\frac{1}{3}} y^{\frac{2}{3}} = (x)^{\frac{1}{3}} (2x)^{\frac{2}{3}}$
 $\begin{cases} x = (125)^{\frac{1}{3}} \\ y = (600)^{\frac{1}{3}} \end{cases}$

$\Rightarrow \text{Budget } 10 \text{元}$

$\text{Max } V = f(x, y) = x^{\frac{1}{3}} y^{\frac{2}{3}}$

$300 = 10x + 10y$

$\text{MRS}_{xy} = \frac{y}{2x} = \frac{10}{10} = 1$

$y = 2x$

$\begin{cases} x = 10 \\ y = 20 \end{cases}$

③ 验证效果

由 $(x, y) = [(125)^{\frac{1}{3}}, (600)^{\frac{1}{3}}]$ 到 $(10, 20)$

④ 替代效果

由 $(x, y) = (5, 20)$ 到 $[(125)^{\frac{1}{3}}, (600)^{\frac{1}{3}}]$

x 的替代效果 $= (125)^{\frac{1}{3}} - 5 > 0$

4.

$\text{Max } V = f(x, y) = x^{\frac{1}{3}} y^{\frac{2}{3}}$

$20x + 10y = 300$

① $\text{MRS}_{xy} = \frac{y}{2x} = \frac{p_x}{p_y} = \frac{20}{10} = 2 \Rightarrow y = 4x$

② $\begin{cases} y = 4x \\ 20x + 10y = M \end{cases} \rightarrow x = \frac{M}{60}$

③ $y = \frac{M}{10}$

④ $300 = p_x X + 10Y$

$\text{MRS}_{xy} = \frac{y}{2x} = \frac{p_x}{p_y} \Rightarrow y = \frac{p_x \cdot 2x}{10}$

$300 = p_x X + 10 \left(\frac{p_x \cdot 2x}{10} \right)$

$= p_x X + 2x p_x$

$= 3x \cdot p_x$

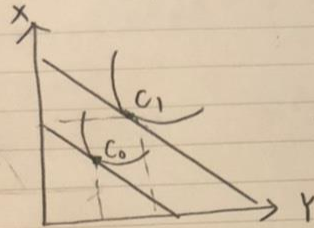
$\rightarrow x = \frac{100}{p_x}$

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三、支持

① 價格補貼和所得課稅可以富有支付錢照顧窮人，而窮人則可以用少少的錢，獲得優良的醫療



② 書店普及，印刷業發達

③ 法規、稅收 \Rightarrow 造成 E-book 太貴

④ 德政府法規稅收，出版商可自由定價 (印刷書便宜)

