ECO 14 12 23

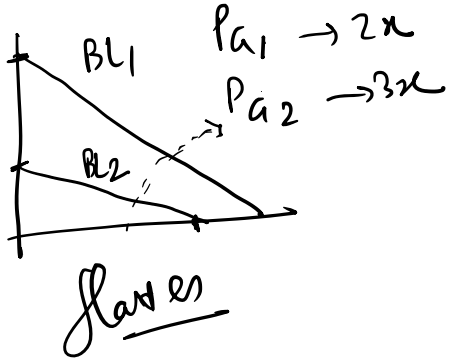
Thursday, December 14, 2023 4:50 PM

Micro

$P_1Q_1 + P_2Q_2 = M$

steeper ↔ flatter

1. Suppose good 1 is taken on the horizontal axis and good 2 on vertical axis, then what happens to the budget line if the price of good 1 doubles and price of good 2 triples?
   (a) The budget line becomes steeper
   (b) The budget line becomes flatter
   (c) The budget line become vertical
   (d) The budget line remains unchanged



flatter

2. Properties of expenditure function are (in the context of utility theory),

A. Homogeneous of degree one in price, P

B. Strictly increasing in utility, u and non-decreasing in price, P for any good 1.

C. Concave in P

D. Continuous in P and u

E. Strictly convex in P

Choose the correct answer from the option given below:

(a) A, C, D, E only (b) A, B. D. E only

(c) A, B, C, D only (d) B, C, D, E only

3. The utility function of a consumer is given by $U = f(q_1, q_2) = q_1 \cdot q_2$, suppose the price of q_1 is $P_{q1} = 1$ and price of q_2 is $P_{q^2} = 2$. The consumer wants to spend amount of k units only what will be his demand for q_1 and q_2?

(a) $(q_1, q_2) = \left(k, \frac{k}{2}\right)$ (b) $(q_1, q_2) = \left(\frac{k}{4}, \frac{k}{6}\right)$

(c) $(q_1, q_2) = \left(\frac{k}{2}, \frac{k}{4}\right)$ (d) $(q_1, q_2) = \left(\frac{k}{2}, \frac{k}{3}\right)$

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$L(x, y, \lambda) = xy + \lambda(k - x - 2y)$

$\frac{\partial L}{\partial x} = y - \lambda = 0$

$x - 2\lambda = 0$

$x = 2\lambda$

$\frac{\partial L}{\partial y} = k - x - 2y = 0$

$\frac{\partial L}{\partial \lambda} =$

$2\lambda + 2\lambda = k \cdot 4\lambda$

$y = \lambda = \frac{k}{4}$

$x = 2\lambda = 2\left(\frac{k}{4}\right) = \frac{k}{2}$

5. Which of the following holds for Bertrand's Duopoly model.

A. The reaction curves are derived from isoprofit maps which are convex to the axes.

B. The point of intersection of the two reaction curves reflects a stable equilibrium.

C. The reaction curves are derived from isoprofit maps which are concave to the axes.

D. The point of intersection of the two reaction curves reflects an unstable equilibrium.

E. Firm's behavioral pattern is such that they learn from past experience.

Choose the correct answer from the option given below:

(a) A and B only (b) C and D only

(c) A, D and E only (d) B, C and E only

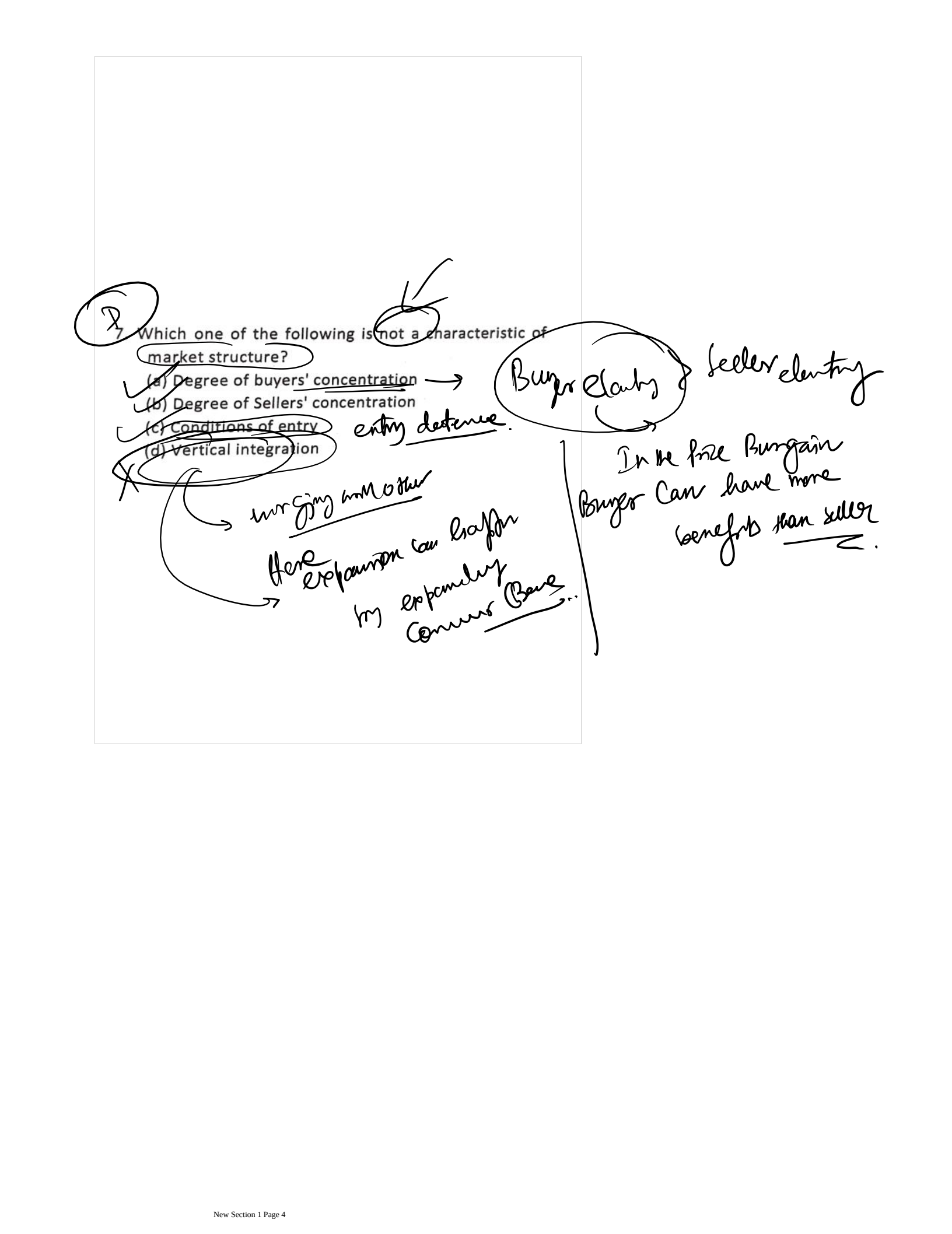
7 Which one of the following is not a characteristic of market structure?

(a) Degree of buyers' concentration

(b) Degree of Sellers' concentration

(c) Conditions of entry

(d) Vertical integration



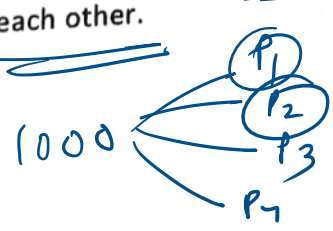
8. Which of the following is not true in the case of the second theorem of welfare economics?

(a) If consumers exhibit convex preferences, every Pareto efficient allocation is a possible competitive equilibrium in a pure exchange economy.

(b) In an economy involving production, the convexity of production sets ensures that a pareto efficient allocation can be achieved as a market equilibrium.

(c) It holds when there are increasing returns to scale.

(d) It implies that in the market system, the allocative role and the distributive role can be separated from each other.



Calculus approach

1st theorem

Competitive eqm will lead to Pareto-efficient allocation of Resources.

2nd theorem

Pareto efficient allocation can be achieved through Competitive eqm provided lump-sum redistributions are possible.

10. Which one of the following is not true in case of producer's equilibrium?

(a) $\frac{MP_L}{MP_K} = \frac{w}{r}$

(b) $MRTS_{LK} = \frac{MP_L}{MP_K} = \frac{w}{r}$

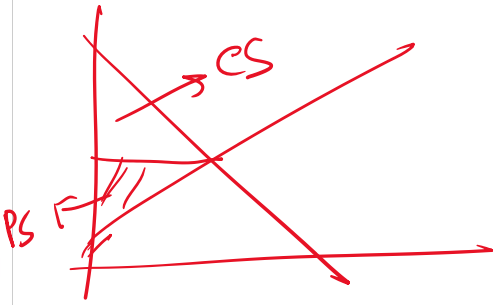
(c) $\frac{MP_L}{w} = \frac{MP_K}{r}$

(d) $MRTS_{LK} = \frac{r}{w}$

11. If the demand and supply functions are given $P_d = 20 - 5x$ and $P_s = 4x + 8$; obtain Producer's surplus

(a) 31/9 (b) 32/9

(c) 129/9 (d) 29/9



At eqlm $20 - 5x = 4x + 8$

$x = 4/3$

$P = 20 - 5(4/3) = 6.67$

$\int_0^{4/3} (4x+8)\,dx$ ...

$\frac{dQ_A}{dP_B} \times \frac{P_B}{Q_A} = 0.3 \times 10$

$Q_A = 100 - 2P_A + 0.2Y + 0.3P_B$

$\frac{dQ_A}{dP_B} = 0.3$

$100 - 12 + 100 + 18$

$= 206 - 12$

12. The demand function for Good A is given by $Q_A = 100 - 2P_A + 0.2Y + 0.3P_B$.
Find the cross - price elasticities of demand at $P_A = 6$, $Y = 500$, $P_B = 10$.

(a) 0.06
(b) 0.026
(c) 0.52
(d) - 0.06

MRS < 0 ∞

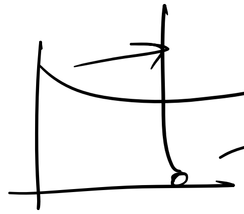
Complete → Substitute
Complete → Constant

either Joint consumption
or
NO Consumption

13. In case of two goods for which the MRS is zero or infinite, then the nature of goods is:

(a) Perfect substitutes (b) Normal goods

(c) Perfect complements (d) Close substitutes

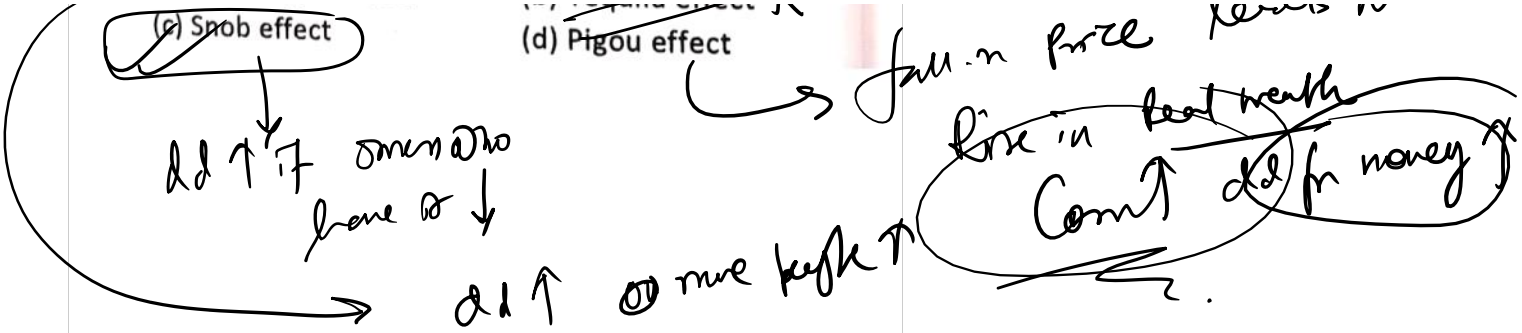


14. Which of the following is not true?
   (a) Total effect of price change on consumption of a good is a combination of income effect and substitution effect
   (b) For inferior goods, the income effect is always larger than the substitution effect, in absolute terms.
   (c) For corner solution $MRS_{xy} \neq \frac{P_x}{P_y}$
   (d) For a normal good both the income and substitution effect hold

15. The negative network externality in which a consumer wishes to own an exclusive or unique good such as specially designed sports car is:
   (a) Bandwagon effect
   (b) Tequila effect
   (c) Snob effect
   (d) Pigou effect

(c) Snob effect

(d) Pigou effect



17. A game in which the gains or losses of one player or firm do not come at the expenses of or provide equal benefit to the other player or firm, is known as _____

(a) Zero-Sum game
(b) Non-Zero Sum game
(c) Mixed game
(d) Balanced game