

ECON 205 Midterm 1 Mock Exam C - Key

Section I: Multiple Choice

1. B

2. C

3. D

4. B

5. B

6. C

7. B

8. B

9. B

10. C

11. B

12. C

Section I Intuition Coach

- For each option, ask: “Does this statement move the **right curve** in the **right direction**?”
- In macro accounting items, distinguish identities (always true) from behavioral statements (usually true).
- In labor questions, the phrase “actively searching” is the switch that moves someone into unemployment.
- For elasticity questions, classification is based on absolute value, while sign still carries direction.

Section II: Graphing and Market Analysis

13) Electricity Price Cap

1. Correct graph with $P=0.20$, $Q=500$, ceiling at 0.15.
2. Binding ($0.15 < 0.20$).
3. Shortage = $560 - 430 = 130$ million kWh.
4. Any two: brownouts/rationing, waiting/priority queues, lower service quality, informal side contracts.
5. Supply subsidy (right shift) reduces shortage.

14) Wheat Market Two-Shock

1. Supply left (higher costs), demand right (population growth).

2. Price rises.
3. Quantity ambiguous due to opposing effects on Q.
4. Ceteris paribus: isolate each shock separately before combining results.

Section III: Quantitative Problems

15) National Accounts and Deflator

Data: - 2025: streaming 100x1500, furniture 400x220 - 2026: streaming 110x1620, furniture 440x236

1. Nominal GDP
 - 2025: $100 \times 1500 + 400 \times 220 = 150,000 + 88,000 = 238,000$
 - 2026: $110 \times 1620 + 440 \times 236 = 178,200 + 103,840 = 282,040$
2. Real GDP (base 2025)
 - Real 2025 = 238,000
 - Real 2026 = $100 \times 1620 + 400 \times 236 = 162,000 + 94,400 = 256,400$
3. Real growth
 - $(256,400 - 238,000) / 238,000 = 7.73\%$
4. Deflator and inflation
 - Deflator 2025 = 100.00
 - Deflator 2026 = $(282,040 / 256,400) * 100 = 110.00$
 - Inflation = 10.00%

16) Labor Market Metrics

Given adults 220, E=136, U=12 (millions)

1. LF = 148
2. $u = 12 / 148 = 8.11\%$
3. LFPR = $148 / 220 = 67.27\%$
4. EPOP = $136 / 220 = 61.82\%$
5. If 4 million unemployed stop searching:
 - U=8, LF=144
 - New $u = 8 / 144 = 5.56\%$

17) Saving and NX

Given Y=7000, C=4700, T=1200, G=1500, I=980

1. Savings:
 - Sp = $7000 - 4700 - 1200 = 1100$
 - Sg = $1200 - 1500 = -300$
 - S = 800
2. NX = S - I = $800 - 980 = -180$
3. Trade deficit ($NX < 0$)
4. Higher r:

- C tends to fall
- I tends to fall

Section IV: Short Concept Responses

18) Elasticity + Revenue

1. Elasticity approx = $-2\% / 5\% = -0.40$
2. Inelastic (absolute value < 1)
3. Revenue rises when price rises under inelastic demand.

19) Production, Returns, and Policy

1. If K and L both double, Y doubles.
2. Constant returns to scale.
3. Valid policies: R&D support, education/human capital, innovation incentives, technology diffusion policy; mechanism is higher productivity parameter A.

Intuition Debrief (How to Think Fast Under Time Pressure)

- **Price caps/floors:** quantity constraints appear first; non-price rationing appears second.
- **Deflator vs CPI:** deflator tracks domestic production prices; CPI tracks consumer cost of living.
- **Unemployment and participation interact:** discouragement can lower measured unemployment while labor slack remains.
- **Saving identity:** $(S = I + NX)$ is an accounting mirror of domestic and external financing.
- **Production logic:** one-input increases face diminishing returns; broad productivity gains require better technology or organization.