ECON 205 Midterm 1 - Active Recall Bank Key

Section A - Core Concepts

1. Quantity demanded: amount consumers are willing and able to buy at a given price over a period.
2. Quantity supplied: amount producers are willing and able to sell at a given price over a period.
3. Law of demand: as price rises, quantity demanded falls (ceteris paribus).
4. Law of supply: as price rises, quantity supplied rises (ceteris paribus).
5. Movement along demand is caused by own-price change; shift is caused by non-price determinants.
6. Any two: income, preferences, prices of substitutes/complements, number of buyers, expectations/information.
7. Any two: input costs, technology, number of sellers, taxes/subsidies, expectations, regulation.
8. Equilibrium price: price at which quantity demanded equals quantity supplied.
9. Shortage: QD $>$ QS at prevailing price.
10. Surplus: QS $>$ QD at prevailing price.
11. Shortage pushes price up, raising QS and reducing QD toward equilibrium.
12. Surplus pushes price down, reducing QS and raising QD toward equilibrium.
13. Price ceiling: legal maximum price.
14. Binding when ceiling is below equilibrium price.
15. Price floor: legal minimum price.
16. Binding when floor is above equilibrium price.
17. Own-price demand elasticity: responsiveness of quantity demanded to own-price changes.
18. $|\varepsilon_D| > 1$ means elastic demand.
19. Own-price supply elasticity: responsiveness of quantity supplied to own-price changes.
20. Income elasticity: responsiveness of quantity demanded to income changes.
21. Normal good: positive income elasticity.
22. Inferior good: negative income elasticity.
23. Real GDP: value of final output at constant (base-year) prices.
24. Nominal GDP: value of final output at current prices.
25. Spending, income, and value-added approaches.
26. To avoid double-counting the same production.
27. Net exports = exports minus imports.
28. Deficit: NX < 0, Surplus: NX > 0.
29. Real interest rate: nominal interest rate minus expected inflation.
30. Natural unemployment rate: rate when economy is at potential output (mainly frictional + structural).

Section B - Formula Recall

31. $Y = C + I + G + NX$
32. $NX = X - M$
33. $S_p = Y - C - T$
34. $S_g = T - G$
35. $S = S_p + S_g = Y - C - G$
36. $S = I + NX$
37. $u = \frac{U}{\text{LF}}$
38. $\text{LF} = E + U$
39. $\text{LFPR} = \frac{\text{LF}}{\text{Adult population}}$
40. $\text{EPOP} = \frac{E}{\text{Adult population}}$
41. $r \approx i - \pi^e$

42. GDP deflator $= \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$
43. $\pi_t^{\text{Def}} = \frac{\text{Def}_t - \text{Def}_{t-1}}{\text{Def}_{t-1}}$
44. Nominal growth: $\frac{\text{Nom}_t - \text{Nom}_{t-1}}{\text{Nom}_{t-1}}$
45. Real growth: $\frac{\text{Real}_t - \text{Real}_{t-1}}{\text{Real}_{t-1}}$
46. Midpoint % change in X: $\frac{X_2 - X_1}{(X_1 + X_2)/2}$
47. $\varepsilon_D = \frac{\text{midpoint } \%\Delta Q_D}{\text{midpoint } \%\Delta P}$
48. $g = \left(\frac{X_t}{X_0}\right)^{\frac{1}{n}} - 1$
49. Labor productivity: $\frac{Y}{L}$
50. Capital productivity: $\frac{Y}{K}$

Section C - Graph/Direction

51. Demand for electric cars shifts right.
52. Supply of cars shifts left.
53. Binding ceiling creates shortage.
54. Binding floor in labor market creates excess labor supply (unemployment pressure).
55. Supply left: P up, Q down.
56. Demand right: P up, Q up.
57. Usually price and quantity effects can differ; commonly quantity is ambiguous depending on magnitudes.
58. Price rises unambiguously.
59. Revenue falls.
60. Revenue rises.
61. Current consumption share tends to fall.
62. Investment share tends to fall.
63. Domestic currency tends to appreciate.
64. NX tends to fall (exports down, imports up).
65. Supply shifts right.
66. Current demand tends to fall.
67. Production function shifts up.
68. Output rises.
69. Output rises proportionally (same proportion as inputs).
70. Diminishing marginal returns.

Section D - Quantitative Drills

71. $\varepsilon_D = \frac{(180-100)/140}{(8-12)/10} = \frac{0.5714}{-0.4} = -1.43$ (elastic)
72. $\varepsilon_D = \frac{(360-400)/380}{(7-5)/6} = \frac{-0.1053}{0.3333} = -0.32$ (inelastic)
73. $Y = 1200 + 300 + 400 - 50 = 1850$
74. Deflator $= \frac{900}{750} \times 100 = 120$
75. Inflation $= \frac{121-110}{110} = 10\%$
76. LF $= 35$, $u = \frac{5}{35} = 14.29\%$, LFPR $= \frac{35}{50} = 70\%$, EPOP $= \frac{30}{50} = 60\%$
77. $S_p = 6000 - 3900 - 1000 = 1100$; $S_g = 1000 - 1200 = -200$; $S = 900$
78. $NX = S - I = 900 - 700 = 200$
79. Nominal growth: $\frac{1100-1000}{1000} = 10\%$
80. Real growth: $\frac{945-900}{900} = 5\%$
81. $r \approx 6\% - 2\% = 4\%$
82. $r \approx 4\% - 5\% = -1\%$

83. $NX = 450 - 520 = -70$ (trade deficit)
84. Y factor $= \sqrt{2} \approx 1.41$
85. Y factor $= 2$
86. $\varepsilon_S = \frac{(260-200)/230}{(13-10)/11.5} = \frac{0.2609}{0.2609} = 1.00$
87. Total growth: $\frac{2500-2000}{2000} = 25\%$
88. Annualized growth: $\left(\frac{2500}{2000}\right)^{1/5} - 1 = 4.56\%$
89. Measured unemployment rate usually falls because U and LF decline when job search stops.
90. No effect (non-binding floor).

Section E - Mini Short Answers

91. Binding ceilings keep posted prices low, so excess demand appears. Landlords can ration by waitlists, screening, and maintenance cuts. Non-price competition replaces price.
92. Spending and income data come from different sources and timing. Measurement error/statistical discrepancy causes small differences. Conceptually they should match.
93. Real GDP removes price-level changes, isolating output quantity changes. Nominal GDP mixes output and inflation effects.
94. CPI tracks cost of a fixed consumer basket; GDP deflator tracks prices of domestically produced final goods/services and varies with composition.
95. Cyclical unemployment rises in recessions when aggregate demand falls. Example: layoffs during a broad downturn.
96. Frictional unemployment is short-term search unemployment from normal turnover. Example: new graduate searching for first job.
97. Structural unemployment reflects mismatch in skills/location or technology shift. Example: workers displaced by automation without matching skills.
98. Diminishing marginal returns means adding more of one input (holding others fixed) increases output by smaller increments.
99. Constant returns to scale means increasing all inputs by x% increases output by the same x%.
100. Example policy: R&D tax credits or public research funding. Channel: more innovation and diffusion raises A, shifting production capacity upward.

Intuition Map (Teach the Why, Not Just the What)

Price System Intuition

- Markets clear through price unless policy fixes price away from equilibrium.
- Shortages and surpluses are signals that posted price is inconsistent with both sides' plans.

Measurement Intuition

- Real variables strip price noise; nominal variables blend price and quantity.
- GDP, labor, and inflation metrics are ratio-based: wrong denominator means wrong economics.

Elasticity Intuition

- Elasticity is adjustment speed: who can change behavior more when conditions change?
- Revenue direction depends on which side (price or quantity) dominates in percentage terms.

Open-Economy and Saving Intuition

- (NX) is not separate from domestic choices; it mirrors the gap between saving and investment.

- Trade deficits are financing outcomes, not automatically "good" or "bad" without context.

Growth Intuition

- Short-run output can move from demand shocks, but long-run living standards depend on productivity.
- Technology (A) matters because it raises output from the same (K) and (L).