

# ECON 205 Midterm 1 - Active Recall Bank

Use this bank to test yourself cold.

Rule: answer without notes first, then check the key.

## Section A - Core Concepts (30 questions)

1. Define quantity demanded.
2. Define quantity supplied.
3. State the law of demand.
4. State the law of supply.
5. Difference between a movement along demand and a shift of demand.
6. Give two examples of demand shifters.
7. Give two examples of supply shifters.
8. Define equilibrium price.
9. Define shortage.
10. Define surplus.
11. Why do markets tend to self-correct from shortage?
12. Why do markets tend to self-correct from surplus?
13. Define a price ceiling.
14. When is a price ceiling binding?
15. Define a price floor.
16. When is a price floor binding?
17. Define own-price elasticity of demand.
18. What does  $|\varepsilon_D| > 1$  mean?
19. Define own-price elasticity of supply.
20. Define income elasticity of demand.
21. What sign does income elasticity have for normal goods?
22. What sign does income elasticity have for inferior goods?
23. Define real GDP.
24. Define nominal GDP.
25. Name the three approaches to GDP measurement.
26. Why are intermediate goods excluded in GDP?
27. Define net exports.
28. Difference between trade deficit and trade surplus.
29. Define real interest rate.
30. Define natural unemployment rate.

## Section B - Formula Recall (20 questions)

31. Write GDP identity (spending approach).
32. Write net exports formula.
33. Write private saving formula.
34. Write public saving formula.
35. Write national saving formula.
36. Write open-economy saving-investment identity.

37. Write unemployment rate formula.
38. Write labor force formula.
39. Write LFPR formula.
40. Write employment-population ratio formula.
41. Write real interest approximation formula.
42. Write GDP deflator formula.
43. Write inflation formula using GDP deflator.
44. Write nominal growth rate formula.
45. Write real growth rate formula.
46. Write midpoint formula for percentage change.
47. Write midpoint elasticity formula for demand.
48. Write annualized growth formula over n years.
49. Write labor productivity formula.
50. Write capital productivity formula.

### Section C - Graph/Direction Questions (20 questions)

51. Gasoline price rises sharply. What happens to demand for electric cars?
52. Steel input costs rise. What happens to supply of cars?
53. Government imposes a binding rent ceiling. What happens to shortage/surplus?
54. Government imposes a binding minimum wage. What happens in labor market quantity?
55. Supply shifts left, demand unchanged. Direction of equilibrium price and quantity?
56. Demand shifts right, supply unchanged. Direction of equilibrium price and quantity?
57. Demand and supply both shift right. What is generally ambiguous?
58. Demand shifts right, supply shifts left. What is generally unambiguous?
59. If demand is very elastic, what happens to revenue when price rises?
60. If demand is very inelastic, what happens to revenue when price rises?
61. If real interest rate rises, what happens to current consumption share?
62. If real interest rate rises, what happens to investment share?
63. If domestic interest rate rises, what tends to happen to exchange rate?
64. If domestic currency appreciates, what tends to happen to NX?
65. If more firms enter market, what happens to supply curve?
66. If consumers expect lower future prices, what happens to current demand?
67. If productivity improves, what happens to production function?
68. If K increases with A and L fixed, what happens to output?
69. If all inputs double in constant-returns technology, output changes by what proportion?
70. If only one input increases and each extra unit adds less output, what concept is this?

## Section D - Quantitative Drills (20 questions)

71. Price falls 12 to 8, quantity demanded rises 100 to 180. Compute midpoint elasticity.
72. Price rises 5 to 7, quantity demanded falls 400 to 360. Elastic or inelastic?
73.  $C=1200$ ,  $I=300$ ,  $G=400$ ,  $NX=-50$ . Compute GDP.
74. Nominal GDP=900, Real GDP=750. Compute GDP deflator.
75. Deflator rises from 110 to 121. Compute inflation rate.
76. Adults=50, E=30, U=5. Compute LF, u-rate, LFPR, EPOP.
77.  $Y=6000$ ,  $C=3900$ ,  $T=1000$ ,  $G=1200$ . Compute private, public, national saving.
78. Using #77 and  $I=700$ , compute implied  $NX$  from  $S=I+NX$ .
79. 2025 nominal GDP 1000, 2026 nominal GDP 1100. Nominal growth?
80. 2025 real GDP 900, 2026 real GDP 945. Real growth?
81.  $i=6\%$ , expected inflation=2%. Real rate?
82.  $i=4\%$ , expected inflation=5%. Real rate?
83. Exports=450, imports=520. Compute  $NX$  and classify trade balance.
84. If  $Y=AK^{0.5}L^{0.5}$  and  $K$  doubles, by what factor  $Y$  changes ( $A, L$  fixed)?
85. If  $Y=AK^{0.5}L^{0.5}$  and  $K, L$  both double, by what factor  $Y$  changes?
86. Quantity supplied rises 200 to 260 when price rises 10 to 13. Compute midpoint supply elasticity.
87. Real GDP in 2025=2000 and 2030=2500. Compute total growth.
88. Using #87 over 5 years, compute annualized growth.
89. If 3 million unemployed stop searching, what happens mechanically to unemployment rate?
90. If price floor set below equilibrium price, what is market effect?

## Section E - Mini Short Answers (10 questions)

91. In 3-4 lines, explain why binding ceilings can reduce quality.
92. In 3-4 lines, explain why GDP by spending and income may differ slightly in practice.
93. In 3-4 lines, explain why real GDP is usually preferred for growth analysis.
94. In 3-4 lines, explain difference between CPI inflation and GDP deflator inflation.
95. In 3-4 lines, explain cyclical unemployment with one example.
96. In 3-4 lines, explain frictional unemployment with one example.
97. In 3-4 lines, explain structural unemployment with one example.
98. In 3-4 lines, explain diminishing marginal returns.
99. In 3-4 lines, explain constant returns to scale.
100. In 3-4 lines, explain one policy channel through which technology ( $A$ ) can increase.