

Review Guide – Midterm

Topic 1 – Production, Income, and Employment

1. Definition of GDP – judge what should or should not be included in GDP.
2. The expenditure approach to calculate GDP: $GDP = C + I + G + NX$
3. Describe all the components: C, I, G, NX
4. How to treat the change in inventories in the calculation of GDP?
5. How to treat transfer payments in the calculation of GDP?
6. Explain value-added approach to calculating GDP.
7. Explain factor-payment approach to calculating GDP.
8. Explain why total output = total income.
9. What are the four types of unemployment? Describe each type.
10. Explain why cyclical unemployment is a concern for macroeconomic policy.
11. Define the unemployed, civilian noninstitutional population, and labor force.
12. Calculate unemployment rate given the labor force and the number of the unemployment.
13. Adjust the unemployment rate with the presence of involuntary part-time workers or discouraged workers.

Topic 2 – The Monetary System, Prices, and Inflation

1. What are the two types of standardization of a monetary system?
2. What is ‘fiat’ money? (legal tender)
3. How to construct index numbers

$$\text{Index number} = \frac{\text{value of measure in current period}}{\text{value of measure in base period}} \times 100$$

4. What is CPI? And what goods and services should be or should not be included in the market basket in the calculation of CPI?
5. Calculate inflation rate based on a price index.
6. Calculate real value

$$\text{real value} = \frac{\text{nominal value}}{\text{price index}} \times 100$$

7. How does inflation redistribute real income between those who make payments and those who receive payments?
8. $\% \Delta \text{Real Value} = \% \Delta \text{Nominal Value} - \text{Inflation rate}$
9. If inflation is fully anticipated, there is no shifting in purchasing power. However, when actual inflation is different from expected inflation, there will be shifting in purchasing power.

Topic 3 – The Classical Long-Run Model

1. The Classical model attempts to explain the long-run behavior of economy.
2. What is the assumption of the Classical model?
3. Describe the demand and supply in the labor market.
4. Explain how an economy achieves full employment in the Classical model.
5. What is a Production Function?
6. What is the full-employment output?
7. What is the planned investment spending (I^p)? - $I^p = I - \Delta inventories$
8. What is the net taxes (T)? - $T = total\ tax\ revenue - transfer\ payments$
9. What is the household saving (S)? - $S = Disposable\ income - C$
10. What is the disposable income? $Disposable\ income = total\ income - net\ taxes$
11. Describe the demand, supply, and equilibrium in the loanable funds market.
12. Explain why, even in a more realistic economy, total output is still equal to total spending, i.e.

$$C + S + T = C + I^p + G$$

Topic 4 – Economic Growth and Rising Living Standards

1. How to decompose the potential output into four components?
 - Labor productivity
 - Average hours of labor
 - Labor force participation rate
 - Size of population
2. How to calculate each component?
3. How to calculate the percentage change in output per capita?
 $\% \Delta Output\ per\ capita \approx \% \Delta Productivity + \% \Delta Average\ hours + \% \Delta LFPR$
If we ignore the small change in average hours, then we have
 $\% \Delta Output\ per\ capita \approx \% \Delta Productivity + \% \Delta LFPR$
4. How to raise the LFPR?
 - Increase labor supply
 - Increase labor demand
5. How would real wage rate, employment, and real output change when labor supply and/or labor demand change?
6. What can a government do to motivate more people to provide labor?
7. What can a government do to encourage firms to hire more workers?
8. Why is *capital per worker* important in determining labor productivity?
9. What is the difference between a stock variable and a flow variable?
10. What can a government do to encourage firms to invest more?
11. What can a government do to induce people to save more?
12. Explain the Crowding Out effect of government spending?
13. How would human capital and technology contribute to economic growth?