

Test 3 will focus on chapters 11, 12, 13, 14 (pp. 293-296, FYI on 296), 15 and any additional materials we covered (articles, videos etc.)

**Note:** Questions will focus on but not be limited to the following list of concepts and topics. When studying, be sure to be able to define a concept or principle, explain it, give an example and calculate or **graph carefully** when appropriate. (Be sure to label graphs fully and correctly, including listing assumptions.)

1. Consumer Price Index (CPI): definition, formula, calculation and comparison with GDP Deflator
2. Problems with the CPI (substitution bias, introduction of new goods bias, unmeasured quality change bias)
3. Inflation rate, Producer Price Index
4. Correcting Economic Variables for Inflation (comparing \$ figures from different times)
5. Indexation
6. Real and nominal interest rates (difference and calculation)
7. Economic growth and productivity
8. Extensive vs intensive growth
9. Hans Rosling “New Insights on Poverty” (ted talk)
10. Alex Tabbarock “How Ideas Trump Crises”
11. Determinants of productivity (Y/L): physical capital per worker (K/L), human capital per worker (H/L), natural resources per worker (N/L), technological knowledge (A)
12. The production function, constant returns to scale, law of diminishing returns, catch-up-effect
13. Investment from abroad: foreign direct vs. portfolio investment
14. Public policy and productivity: effects of savings and investment, education, health and nutrition, property rights and political stability, free trade, Research and Development (public good, patents)
15. Daron Acemoglu (article) and the importance of institutions
16. Outward-oriented vs. inward oriented policies
17. Population growth and its effects on economic growth
18. Thomas Robert Malthus and the Population Principle (Betting the Planet article)
19. Paul Ehrlich vs Julian Simon bet and its results
20. Financial system and its role
21. Bonds, Stocks; debt finance and equity finance
22. Financial intermediaries: banks, mutual funds
23. Saving and Investment and National income Accounting: Private Saving, Public Saving, National Saving; Budget Surplus, Budget Deficit
24. Market for loanable funds: determination of the interest rate and impact of different policies
25. Budget Deficit and Crowding Out; U.S. Government debt
26. Finance: present value, future value, compounding, Rule of 70
27. Unemployment: labor force, unemployment rate, labor-force participation rate
28. Natural rate of unemployment, cyclical unemployment
29. Imperfections of the unemployment rate as a measure of the health of the labor market
30. Discouraged workers
31. Frictional unemployment, job search; unemployment insurance and its impact on frictional unemployment
32. Structural unemployment and its causes: minimum wage laws, unions and their effects on the macroeconomy (collective bargaining, strike); theory of efficiency wages
33. Efficiency wages: Worker Health, Worker Turnover, Worker Quality, Worker Effort