Name_____ Signature_____

Econ 520 Spring 2011a

First Midterm

1 hour, 18 minutes. **Closed book and notes**. **Graphing calculators, Palm Pilots, Cell Phones and Texting devices may not be used**. A non-graphing calculator may be used if desired. Please bubble in your name and the answers to item **0** on your computer answer sheet, using a #2 pencil. Your ID # is **not** required. Record the best answer to each question on your answer sheet. **Please cover your answers.** Answer all 40 questions (2.5 points each). Scoring is based on number right, so it pays to guess. **When you are done, please place your bubble sheet inside this question sheet, and hand in both together, presenting your photo ID for identification.**

0. Under Special Code K, please bubble in the number 1.

1. During 2009, the US Civilian Unemployment rate peaked at its highest level since
   a) The Great Depression of the 1930s
   b) 1973-75
   c) 1982
   d) 1991
   e) 2003

2. During 2007-2009, US real GDP fell by a bigger percentage than in any recession since
   a) The Great Depression of the 1930s
   b) 1944-47
   c) 1957-58
   d) 1973-75
   e) 1981-82

3. Year-over-year US CPI-U inflation is currently (2/10 – 2/11) in what range?
   a) less than 0.9%
   b) 1.0 to 2.9%
   c) 3.0 to 4.9%
   d) 4.0 to 6.9%
   e) 7.0% or more

4. Year-over-year US CPI-U inflation exceeded 10% during
   a) 1957-58
   b) 1967-71
   c) 1978-81
   d) 1991-92
   e) 2007-08

Questions 5-7 relate to a simple economy, with three individuals A, B, and C, endowed with one unit of commodity "a", "b", and "c" each, respectively, and in which preferences are given as shown below:

Person	Preferences	Initial endowment	Intermediate position	Final position
A	b > a > c	a		
B	c > b > a	b		
C	a > c > b	c		

5. If commodity "**b**" serves as a medium of indirect exchange in this economy, the **first** exchange would be between individuals
   a) A and B
   b) A and C
   c) B and C
   d) either A and B or A and C
   e) any pair will work equally well

6. The **second** exchange would then between individuals
   (Same key as previous question)

7. Which individual would use commodity "**b**" as money?
   a) A
   b) B
   c) C
   d) A or B
   e) A or C

8. Holding constant the average length of time money is held between receipt and expenditure, an increase in real transactions conducted with money will
   a) increase real money demand
   b) decrease real money demand
   c) leave real money demand unchanged
   d) increase real money demand under a commodity standard, but decrease it under a fiat money standard
   e) decrease real money demand under a commodity standard, but increase it under a fiat money standard

9. Holding constant the volume of real transactions conducted with money, an increase in the average length of time it is held between receipt and expenditure will
   (same key as previous question)

10. The value of fiat money is determined by
   a) its redemption value in gold
   b) its redemption value in silver
   c) the prospect of future redemption in gold or silver
   d) the ratio of its nominal supply to the demand for real money balances
   e) None of the above; pure fiat money is always worthles.

11. In US Monetary History, the *Greenback Standard* lasted approximately
   a) 1792 – 1834
   b) 1834 – 1861
   c) 1862 – 1879
   d) 1879 – 1933
   e) 1933 – present

12. In 1834 the mint ratio was changed by
   a) increasing the mint price of gold
   b) decreasing the mint price of gold
   c) increasing the mint price of silver
   d) decreasing the mint price of silver
   e) adjusting both mint prices

13. If the world ratio of the price of gold to that of silver is 40:1, while the US adopts a bimetallic standard with a mint ratio of 50:1,
   a) Gold and silver will both tend to flow into the US.
   b) Gold and silver will both tend to flow out of the US.
   c) Gold will tend to flow into the US and silver out of the US.
   d) Silver will tend to flow into the US and gold out of the US.
   e) None of the above.

14. In L. Frank Baum's 1900 book The Wonderful Wizard of Oz, Dorothy's magic shoes are
    a) ruby red
    b) emerald green
    c) sky blue
    d) gold
    e) silver

15. Which of the following price indices behaves **least** like the CPI-U?
    a) PPI for Finished Consumer Goods
    b) PCE Deflator
    c) GDP Deflator
    d) (not used)
    e) (not used)

16. Since 1983, annual CPI-U inflation has exceeded PCE inflation on average by about
    a) + 1.1%
    b) +0.4%
    c) 0.0%
    e) -0.4%
    f) -1.1%

17. If in the year 2020, US Gross Domestic Product is $30 trillion (2020 dollars), and the GDP deflator is 600 (1987 = 100), what will be **real** 2020 GDP (in 1987 dollars)?
    a) $50 billion
    b) $5 trillion
    c) $180 trillion
    d) $630 trillion
    e) $18 quadrillion (ie $18,000 trillion)

18. If in year 2020 **real money demand** is $500 billion (1982-4 $), while the **nominal** money stock is $2.5 trillion (year 2020 $), what is the equilibrium year 2020 price level **(1982-4 = 100)**?
    a) 2.0
    b) 5.0
    c) 200
    d) 500
    e) 2000

19. If the **nominal** interest rate is 4% while the **real** interest rate is 1%, what is the present discounted value of $1000, **not indexed for inflation** and payable in 10 years? (Use annual compounding. Not all information is necessarily used.)
    a) $600.00
    b) $675.56
    c) $684.36
    d) $691.25
    e) $1480.24

20. If the present discounted value of $1000 payable in 10 years **and indexed for inflation from today's date** is $526.76, what is the **real** interest rate? (Assume annual compounding.)
    a) 5.31%
    b) 5.64%
    c) 5.92%
    d) 6.21%
    e) 6.62%

21. If the **real** interest rate is 2% and the **nominal** interest rate is 10%, what is the present value of a stream of payments of $1000 per year forever, **indexed for inflation from today's date**? (Use annual compounding. Not all data is necessarily used.)
    a) $20
    b) $100
    c) $10,000
    d) $20,000
    e) $50,000

22. If interest rates rise, bond prices will
    a) rise
    b) fall
    c) rise if the bond is selling above par and fall otherwise
    d) fall if the bond is selling above par and rise otherwise
    e) remain constant

23. Suppose that a 30-year bond has a duration of 20 years. If its yield to maturity **falls** by 1 percentage point (100 basis points), what is the approximate change in its present value?
    a) Zero unless its coupon rate is changed
    b) +1%
    c) +20%
    d) +30%
    e) None of the above – its present value must fall if its yield falls.

24. If the real interest rate is 2% per annum, and the public anticipates 6% inflation, what will the nominal interest rate be, according to the Fisher Equation?
    a) –4%
    b) +2%
    c) +4%
    d) +6%
    e) +8%

25. According to *Adaptive Expectations* (or its modern generalization *Adaptive Learning*), inflationary expectations roughly equal
    a) the monetary expansion rate minus the average growth rate of real income
    b) the most recently observed monthly inflation rate, annualized to an annual rate
    c) an equally-weighted average of inflation over each agent's lifetime
    d) a weighted average of past inflation, with greatest weight on the most recent past
    e) a weighted average of past inflation, with greatest weight on the most distant past

26. Real interest rates on US 1-year Treasury bills, as inferred from the Fisher Equation and assuming Adaptive Expectations, were 6% or higher during
    a) the early 1960s
    b) the late 1960s
    c) the late 1970s
    d) the early 1980s
    e) the late 1990s

27. Since they were introduced in 1997, real yields on 10-year Treasury Inflation Protection Securities (TIPS) have been primarily in the range
    a) less than 1.0%
    b) 1.0 to 4.0%
    c) 4.0 to 7.0%
    d) 7.0 to 10.0%
    e) 10.0 and higher

28. Income velocity is defined to be
    a) nominal income divided by nominal money balances
    b) nominal money balances divided by nominal income
    c) real income divided by nominal money balances
    d) nominal money balances divided by real income
    e) nominal income divided by real money balances

29. If the nominal money stock grows at an annual rate of 5%, while real income grows at 2% and velocity **is constant**, what is inflation?
    a) –3%
    b) 0
    c) +3%
    d) +5%
    e) +7%

30. If the nominal money stock grows at an annual rate of 5%, while real income grows at 2% and velocity **falls by 1%**, what is inflation?
    a) -2%
    b) +2%
    c) +4%
    d) +6%
    e) +8%

31. What growth rate of nominal money is required to give 5% annual inflation if real income grows at 4% and velocity is expected to **be constant**?
    a) -1%
    b) +1%
    c) +3%
    d) +9%
    e) +11%

32. Price ceilings caused Suppressed Inflation during
    a) 1957-58
    b) 1967-71
    c) 1971-73
    d) 1978-81
    e) None of the above – price ceilings tend to cause Suppressed Deflation

33. A **de**crease in nominal interest rates tends to
    a) **in**crease the demand for real money balances and **in**crease velocity
    b) **in**crease the demand for real money balances and **de**crease velocity
    c) **de**crease the demand for real money balances and **in**crease velocity
    d) **de**crease the demand for real money balances and **de**crease velocity.
    e) Have no effect on either real money demand or velocity.

34. *Self-generating inflation* is made **more** likely when there is
    a) a **strong** response of money demand to interest rates and **quickly** adjusting inflationary expectations.
    b) a **strong** response of money demand to interest rates and **slowly** adjusting inflationary expectations.
    c) a **weak** response of money demand to interest rates and **quickly** adjusting inflationary expectations.
    d) a **weak** response of money demand to interest rates and **slowly** adjusting inflationary expectations.
    e) None of the above; self-generating inflation is a theoretical impossibility.

35. If real money balances are $2,000 billion (2011 dollars), and the monetary expansion rate is 25%, what is the annual rate of seigniorage (in billions of 2011 dollars per year)? (Assume the government creates the entire money stock directly).
    a) $50 billion
    b) $80 billion
    c) $500 billion
    d) $800 billion
    e) $5,000 billion

36. If real money balances are $2000 billion (2011 dollars), and the government has a seigniorage target of $400 billion (2011 dollars) per year, what rate of monetary expansion is required to hit this target in the short run? (Assume the government creates the entire money stock directly.)
    a) 5%
    b) 10%
    c) 20%
    d) 50%
    e) none of the above

37. Assuming **Adaptive Expectations** or its modern generalization, **Adaptive Learning**, a seigniorage target ***below*** the peak of the Long-Run Monetary Laffer Curve
    a) can never be attained; money would immediately lose all its value.
    b) can be attained, but only with an inflation that accelerates without bound.
    c) can be attained, but only with an immediate collapse of the price level to 0.
    d) can be attained, with an inflation that eventually stabilizes at a constant level.
    e) None of the above – only sophomorage can exceed the peak of the Laffer Curve.

38. During an inflation, gains to the government from seigniorage correspond to comparable losses borne by
    a) savers who have invested funds at fixed nominal interest rates
    b) persons whose incomes increase only after their cost of living has gone up.
    c) taxpayers whose average effective tax rate increases due to bracket creep.
    d) owners of money balances.
    e) no one – these gains to the government are costless to the economy.

39. If the before tax real rate of return on an investment is 5%, the marginal tax rate on apparent nominal income is 40%, and inflation is 10%, what is the after tax real rate of return on the investment?
    a) –4%
    b) –1%
    c) +2%
    d) +3%
    e) +7%

40. **Federal** income tax brackets have been indexed for inflation to prevent "bracket creep" since
    a) 1973
    b) 1981
    c) 1989
    d) 1993
    e) Federal income tax brackets are not indexed for inflation.

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