Mid Semester Exam (Answer Key with Detailed Solutions)

Course: Money and Banking | Course Code: ECO 223

Total points: 25 | Weightage towards final grade: 25%

Date: 26/02/2024 | Time: 3:00 PM - 4:00 PM

Answer Key

1. D 2. Liquidity 3. A 4. A 5. D 6. E 7. D 8. E 9. C

10. E 11. -0.1 or -10% 12. D 13. A 14. B 15. D 16. D 17. D

18. A 19. D

Detailed Solutions

Section I

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1. Guaranteeing a price for a corporation's securities and then selling them to the public is known as

   (A) Insuring Securities (B) Diversifying Securities (C) Pegging Securities

   (D) Underwriting Securities (E) None of the above.

   Answer. This is what investment banks do. The investment bank takes he risk upon itself based on its expertise.

2. In the absence of inflation, fixed deposits store (and grow) value better than a savings account. However, the trade off is in _____

   Answer. Liquidity. Fixed deposits give better returns but are less liquid than savings accounts

3. While deciding whether or not to purchase a bond, which of these influences a rational agent's choice the most.

   (A) Ex ante real interest rates (B) Ex post real interest rates

   (C) Nominal interest rates are more important.

   (D) None of these are really important with bonds because of fixed payments.

   Answer. Ex ante real interest rates. This is based on the information available at the time, and decisions are made using this value.

4. In response to a business cycle expansion, if equilibrium demand for bonds increases, what happens to equilibrium supply of bonds?

   (A) Increases (B) Decreases (C) Remains unchanged

   (D) Not enough information

   Answer. When equilibrium demand increases, equilibrium supply must increase too, as in equilibrium both are equal. This is independent of the factor causing the change.

5. Which of the following is the cashflow stream of a coupon bond with coupon payments C, YTM i and face value F for 3 periods to maturity?

   (A) $\frac{C}{1+i} + \frac{C}{(1+i)^2} + \frac{F}{(1+i)^3}$ (B) $C + C + F$ (C) C, C, F (D) None of the above

   Answer. None of these above. The answer is C, C, C, F.

6. According to Milton Friedman, a rise in M^S may not lower interest rates because of

   (A) Expected-inflation effect. (B) Price-level effect. (C) Income effect

   (D) (A) & (B) (E) (A), (B) & (C) (F) None of these is the reason.

   (G) Friedman did not criticise, but agreed with this part of Keynes' theory.

   Answer. This one is easy. All of the above.

7. As the interest rate on bonds, i, rises, the _____ of holding money _____ (most precise answer needed)

   (A) transaction cost; falls (B) opportunity cost; falls (C) transaction cost; rises

   (D) opportunity cost; rises

   (E) In the above sentence, but some other variable is affected.

   Answer. As it is more profitable to hold bonds instead of money, the opportunity cost of holding money rises.

8. If the market for money is in equilibrium

   (A) Money demand slopes downward.

   (B) Equilibrium M^d and M^S are determined by the central bank (C) $B^S = B^D$

   (D) (A) & (B) (E) All of the above

   Answer. A is always true, B is also always true as the actual equilibrium values of M^D and M^S depend on M^S which is determined by the central bank. C is true because when the money market is in equilibrium, so is the bond market. Overall, the answer is all of the above.

9. Net worth is the difference between a firm's assets and its liabilities. It is also called

   (A) ROA (B) Net wealth (C) Equity capital (D) Equity Return

   Answer. Equity capital by definition.

10. Consider the following relationship

$$i_{nt} = \frac{i_t + i^e_{t+1} + i^e_{t+2} + ... + i^e_{t+n}}{n} + l_{nt} \quad ; \quad l_{nt} > 0$$

    this relationship to explain interest rate is given by

(A) Expectations theory (B) Liquidity premium theory

(C) Segmented markets theory (D) Efficient market hypothesis

(E) None of the above

Answer. The answer is none of the above. Though liquidity premium theory does say

$$i_{nt} = \frac{i_t + i^e_{t+1} + i^e_{t+2} + ... + i^e_{t+(n-1)}}{n} + l_{nt} \quad ; \quad l_{nt} > 0$$

which is close but not the same.

11. Consider a \$1000 face value coupon bond with a coupon rate of 10% that is bought for \$1,000, held for one period, and then sold for \$x. Find the value of rate of capital gain g that would make the returns 0.

Answer. This is easily solved in two steps.

$$\text{RET} = \frac{C}{P_t} + \frac{P_{t+1} - P_t}{P_t}$$

$$0 = \frac{100}{1000} + \frac{x - 1000}{1000} \Rightarrow x = 900.$$

$$g = \frac{P_{t+1} - P_t}{P_t} = \frac{900 - 1000}{1000} = -0.1 \text{ or } -10\%$$

12. Which of the following is used in a barter system based economy

(A) Fiat money (B) Commodity Money (C) Mainly coins (D) None of the above.

Answer. None of the above. There is no money in barter system.

13. Which of these factors causes the supply curve of bonds to shift outward?

(A) Increase in profitability of investments (B) Decrease in expected inflation

(C) Decrease in government deficit (D) Both (A) & (B) (E) All of the above

Answer. Only Expected increase in profitability of investments. Others cause inward shift.

14. "The bank manager must pursue an acceptably low level of risk by acquiring assets that have a low rate of default and by diversifying asset holdings". This is known as

    (A) Asset-Liability risk tradeoff. (B) Asset management.

    (C) Liability management (D) Free-rider problem.

    (E) Agency Theory of Moral Hazard and Adverse selection

    Answer. Asset management by definiton.

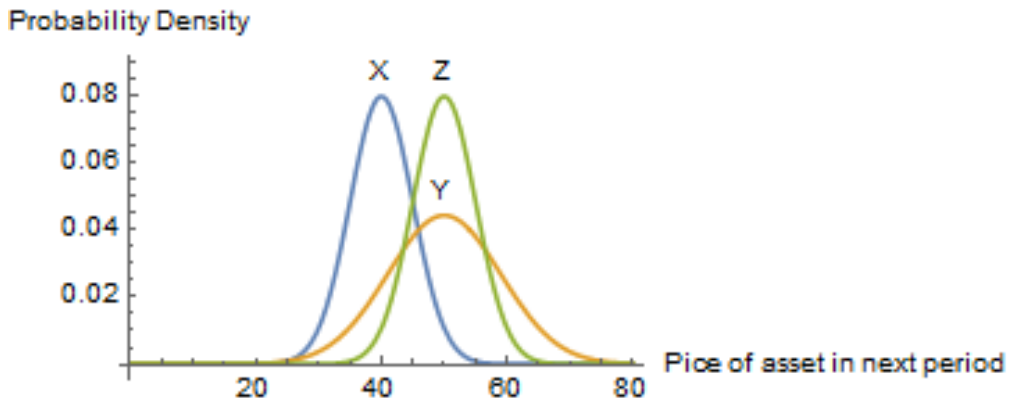
15. Bank capital is costly because the higher it is, the lower will be the return on

    (A) Loans (B) Assets (C) Risks (D) Equity (E) None of the above

    Answer. Equity. This is explained in some detail in your book

Section II

16. Consider 3 assets, X, Y and Z. The distributions in the figures are the probability density functions of the values of these assets in the next period. A risk averse consumer has been asked to choose one of these assets for free, but must cash in in the next period itself. Which of the choices is the worst for them. You may make assumptions about expected value, and variance based on what is visually obvious (including that they are normally distributed).



(A) X (B) Y (C) Z (D) Not enough information.

Answer. Z is obviously the best (highest expectation, lowest variance). However, one cannot say for sure between X and Y, as X has lower variance (lower risk) but also lower expected return than Y. This can only be answered if we know exactly how risk averse the individual is.

17. A supply curve for bonds shows

(A) The unique price one is willing to accept for a given quantity of bonds.

(B) The unique price one is willing to accept for a given quality of bonds.

(C) The relationship between i and quantity of bonds demanded.

(D) Something else.

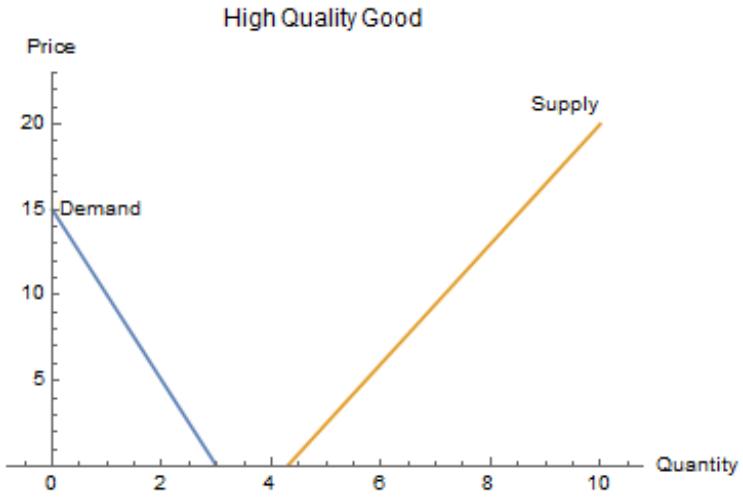
Answer. Something else. A is close, but it is the minimum and not unique price one is willing to accept.

18. We have not directly discussed this in class, but try to think it though. You have enough information to answer it. When the central bank wants to reduce inflationary pressure on the economy, what would they do to the reserve ratio(rr)?

    (A) Increase rr (B) Decrease rr (C) rr will not affect inflationary pressures.

    Answer. A. As rr increases, less loans will be taken leading to lower money in circulation and lesser inflation.

19. In the following situation, trade of the high quality good does not happen. This is a case of



    (A) Bargaining failure (B) Market failure.

    (C) Trade will still happen though it may not look like it from the figure.

    (D) None of the above.

    Answer. None of the above as here, there is genuinely no market for the good at all. Demand does not meet supply. This is not failure of the market.