ECO 223 – Winter 2023 Quiz 2 (Solutions)

Date: 14th February, 2024 Total Marks – 15

Weightage Towards Final Grade – 15% Time: 20 Minutes

Name: ____ Roll Number: ________________

a. Each Question is worth 1.5 points
b. Please circle the right answer. Each question has **ONLY ONE** right answer.
c. Negative marking for wrong answer: -0.3
d. Correct Answers in bold.

Answer the following questions:

1. Consider a discount bond with one period maturity having Price P, YTM i and Face value F, and a perpetuity having YTM i_C, coupon payments C and price P_C. If they have the same YTM and the same price, their YTM is
   a. $i = i_C = \frac{C}{F+C}$
   b. $i = i_C = \frac{F}{F+C}$
   c. $i = i_C = \frac{F-C}{C}$
   d. None of the above.
   It is $\frac{C}{F-C}$
2. Rise in expected inflation leads to leads to

   Find r
   a. Rise in equilibrium demand and supply of bonds
   b. Fall in equilibrium demand and supply of bonds
   c. Rise in supply but fall in demand of bonds
   d. Can't be said for sure, as it is conditional on interaction between demand and supply.
   e. None of the above
   It is true that one cannot be sure about equilibrium, but point c does not mention equilibrium. Supply and demand can be predicted.
3. What does the liquidity preference framework say about the effect of price-level effect? To be precise, due to this effect, an increase in money supply with lead to a _____________ in interest rates.
   Answer is rise/increase.
4. "Yield curves almost always slope upwards". What does expectations theory say about this?
   a. It rejects this possibility, which is why we need Segmented markets and liquidity premium theory.
   b. It accepts this, but rejects the fact that Interest rates on bonds of different maturities move together over time, which is why we need Segmented markets and liquidity premium theory.
   c. It neither accepts nor rejects this, but does not explain it, which is why we need Segmented markets and liquidity premium theory.
   d. None of the above. Alternate theories are needed for other reasons

5. Segmented Markets Theory treats bonds of different maturities as
   a. Substitutes.
   b. Complements.
   c. Having unrelated demand.
   d. Having related interest rates but unrelated demand.
   e. None of the above

6. The system of private production and sale of information does not completely solve the adverse selection problem in securities markets because of
   a. Misaligned incentives.
   b. Transactions costs.
   c. Moral Hazard.
   d. Free-rider problem.
   e. None of the above.

7. In a setting of asymmetric information, low quality goods sometimes drive high quality out of the market (even if there exists a price for which the demand and supply for that high quality good is positive). This is called
   a. Transaction failure.
   b. Decreasing returns to asymmetric information
   c. Information bias
   d. It is called market failure.

8. $\frac{\text{ROE}}{\text{ROA}} = 4$, $\text{Assets} = \$100$ million. Find equity capital.
   $\frac{\text{ROE}}{\text{ROA}}$ is the equity multiplier (EM). $\text{EM} = \frac{\text{Assets}}{\text{Equity Capital}}$. Therefore, Equity capital is **$25 million.**
9. Sometimes, a firm receiving a loan must keep a required minimum amount of funds in an account at the bank. This is known as
   a. Minimum reserve requirement.
   b. Loan reserve requirement.
   c. Compensating balances.
   d. Basic balance requirement
10. The measurement $(\text{Rate sensisitive assets} - \text{rate sensistive liabilities}) \times \Delta\text{interest rates} = \Delta\text{in bank profit.}$ Is called.
   a. Asset sensitivity.
   b. Standardized gap analysis.
   c. Basic gap analysis.
   d. Asset-liability trade-off.