Full name and signature: ____________ ____________	
Date of birth (day/month/year): ________	Today is (day/month/year): ________
Official email address (This field is optional): ____________	

Grading Policy: Good=+2, Wrong=−1, Missing=0

1. Given the risk premium π and the random payoff X, assume we approximate the utility u, with the two Taylor expansions:

$$u(\mathbb{E}X - \pi(X)) \approx u(\mathbb{E}X) - u'(\mathbb{E}X)\pi(X)$$
$$u(X) \approx u(\mathbb{E}X) + u'(\mathbb{E}X)(X - \mathbb{E}X) + \frac{1}{2}u''(\mathbb{E}X)(X - \mathbb{E}X)^2$$

What is wrong with the approximations above? The calculation/application of:

A. The utility function.

B. The expected value.

C. The expansion itself.

2. Let $\bar{r}$ be the vector of portfolio expected returns and $\mathbf{S}$ its covariance matrix. Set:

$$a = \bar{r}'\mathbf{S}^{-1}\bar{r}$$
$$b = \bar{r}'\mathbf{S}^{-1}\mathbf{1}$$
$$c = \mathbf{1}'\mathbf{S}^{-1}\mathbf{1}$$
$$d = ac - b^2$$

Which of the following is correct:

A. $a(-b^2 + ac) \geq 0$

B. $a(-b^2 + ac) > 0$

C. $a(-b^2 + ac) < 0$

3. Prudential regulation:

A. Imposes maximum levels of risk and minimal levels of capital buffer.

B. Imposes minimal levels of capital buffer, adequate to risks taken.

C. Imposes minimal levels of capital buffer, given the riskiness of credit exposures.

4. The monetary base:

A. Is formed by the central bank's assets.

B. Consists of the currency in circulation and bank reserves.

C. Is given by vault cash and central bank reserves.

5. Shadow banking refers to:

A. Non-bank intermediaries providing services similar to traditional commercial banks.

B. Non-bank intermediaries financing retail products manufactured by their parent companies.

C. Non-bank intermediaries targeting borrowers not creditworthy for banks, at higher rates.

6. In regard to Common Equity Tier 1 (CET 1), which of the following is wrong:

A. CET 1 instruments have no maturity date, no right to be redeemed, and no specified coupon.

B. CET 1 instruments represents the less subordinated (most senior) claims.

C. CET 1 instruments distributions (e.g. dividends) are wholly discretionary.

7. The Liquidity Coverage ratio:

A. Ensures that Tier 1 capital is sufficient to survive a serious one-month stress.

B. Is based on the ratio of high-quality liquid assets to projected net outflows.

C. Is based on the ratio of high-quality liquid assets to projected net funding.

8. In regard to Capital Conservation Buffer, which of the following is wrong:

A. Institutions not meeting buffer requirements are limited in their distributions.

B. The buffer consists of CET 1 and Additional Tier 1 instruments.

C. The buffer consists only of CET 1 instruments.

9. Level 1 assets (used to calculate the Liquidity Coverage ratio) *do not* include:

A. Cash.

B. Central bank reserves that can be drawn down in times of stress.

C. Corporate bonds.