**KABARAK UNIVERSITY**

**DPBA 712: FINANCIAL ECONOMICS CAT, 14/03/2020**

1. (a) Graphically analyze the effect of an exogenous decrease in the interest rate on the utility of borrowers and lenders **(5 Marks)**

(b) Explain any four economic determinants of pure security prices. **(4 Marks)**

(c) Assuming a normal distribution of returns and risk-averse utility functions. Explain under what conditions all investors will demand the same portfolio of risk assets. **(4 marks)**

2. (a) Explain the assumptions needed for the Miller-Modigliani dividend irrelevance proposition to hold. **(4 Marks)**

(b) Identify and explains four empirical facts that describe dividend policy **(4 Marks)**

3. A investor faces a 10% chance of having a fire that will reduce her net worth to $1.00, a 10% chance that fire will reduce it to $50,000, and an 80% chance that nothing detrimental will happen, so that her business will retain its worth of $ 100, 000.

(i) What is the maximum amount she will pay for insurance if she has logarithmic utility function given by  **(3 Marks)**

(ii) Calculate the cost of the gamble. (*Note*: The insurance pays $99,999 in the first case;$50, 000 in the second; and nothing in the third). **(3 marks)**

4. Given the exponential utility function 

(a) Does this function exhibit positive marginal utility?

(b) Does the function have decreasing absolute risk aversion?

(c) Does the function have constant relative risk aversion? **(6 Marks)**

5. (a) Suppose you are the manager of an investment fund in a two-parameter economy. Given the following forecast:

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Would you recommend investment in a security with  and covariance Assume that this price changes has no significant effect on the position of the security market line). **(4 Marks)**

(b) Identify and explain concisely the main properties of a good investment decision technique. **(3 Marks)**