BIRKBECK COLLEGE
(University of London)
BSc(Econ) EXAMINATION FOR INTERNAL STUDENTS
DEPARTMENT OF ECONOMICS

FINANCIAL ECONOMICS
Financial Institutions and Regulation: Year 4

Answer **BOTH** the questions in **SECTION A** and any **TWO** of the six questions in **SECTION B**.
Section A counts for 40% of the total exam mark. Section B counts for 60% of the total exam mark.

Section A: (**Answer BOTH the questions in this section**)
Both the questions in this part carry the same weight, i.e. each question accounts for 20% of the total exam mark.

A1. What are 'minimum standards rules', and how can they prevent market failure?

A2. What is meant by the 'convexity' of the payoff to holders of equity, and how does this concept serve to explain excessive risk-taking?

Section B: (**Answer any TWO of the six questions in this section**)
All the questions in this part carry the same weight, i.e. each question accounts for 30% of the total exam mark.

B1. Take a single day's trade in a quote-driven capital market with exogenous information. Dealers' profits are made from the spread between bid and ask prices (P^b and P^a). Each client buys or sells one unit of stock each day. The price of stock can take only two values, 'high' and 'low' (V^H and V^L). A proportion (q) of clients is informed; dealers know the value of q, but cannot distinguish informed from uninformed clients in individual cases. Though neither dealers nor uninformed clients can distinguish between high- and low-value stocks in individual cases, both categories of agent believe that the probability of V^H is p. Uninformed clients trade only to meet a requirement for liquidity, making both their sales and purchases at a price (which we define as μ) calculated on the basis of p. Dealers restore inventories to their original level at the end of each day.

(a) Provide an expression for the value of μ, with explanation.

(b) Draw up a table as follows:

Each of the following transactions forms a row:

(1) A sale to an informed client

(2) A sale to an uninformed client

(3) A purchase from an informed client

(4) A purchase from an uninformed client

Show the outcome of these transactions in the following columns:

(1) The probability of the deal.

(2) The price at which the deal takes place.

(3) The price at which the subsequent inventory-restoration deal takes place.

(4) The difference between these two prices in each case.

(5) The sign of the outcome, i.e. whether the outcome is a profit or loss.

(c) In what ways may the assumptions on which this model is based be relaxed to provide more realistic models of inside information?

B2. How can economic analysis help to clarify the issues involved in regulation of EITHER the market for insurance OR the foreign exchange market?

B3. Show how the economic analysis of the requirement for liquidity can clarify the issues involved in designing measures to prevent bank runs.

B4. What is ‘equilibrium credit rationing’, and how does it illustrate the effect of asymmetrical information in the credit market?

B5. Should insider trading in financial markets be totally banned? Discuss the issues involved with respect to the economic analysis of dealership systems in capital markets.

B6. Critically assess the respective merits of the ‘signalling’ and ‘delegated monitoring’ models of financial intermediation, with particular reference to regulatory issues.