BIRKBECK
(University of London)

BSc(Econ) EXAMINATION FOR INTERNAL STUDENTS

SCHOOL OF ECONOMICS, MATHEMATICS AND STATISTICS

BSc. (Econ.) FINANCIAL ECONOMICS, EMEC009U
Financial Institutions and Regulation: Year 4

DATE OF EXAMINATION: To be announced.

DURATION OF PAPER: Three hours and fifteen minutes.

Answer **BOTH** the questions in **SECTION A** and any **TWO** of the six questions in **SECTION B**.

Section A accounts for 40% of the total exam mark. Section B accounts for 60% of the total exam mark.

Section A: (**Answer BOTH the questions in this section**)
This Section accounts for 40% of the total exam mark.
Each question carries equal weight, i.e. 20% of the total exam mark.

Both the questions in this Section refer to the following model of a single day's trade in a quote-driven capital market, in which we have the following variables:

P^b, P^a	Dealers' bid and ask prices
V^H, V^L	High and low values, i.e. true values, of stock
q	The proportion of clients who are informed
p	The probability of a stock's value being V^H
μ	$pV^H + (1 - p).V^L$

Assumptions:

- The only two possible values of stock in this model are V^H and V^L.
- These values are independent of P^b and P^a.
- Information is exogenous.
- All participants in the market have fixed information endowments.
- Informed clients know whether the value of a stock is V^H or V^L.
- Each client and each dealer carries out only one transaction during the day.
- All dealers fully replenish their inventories at the end of the day.
- Dealers are aware of p, but cannot distinguish the value of an individual stock.
- Dealers are aware of q, but cannot distinguish an informed from an uninformed client in an individual case.

A1. Fill in the table below, and briefly explain the significance of the variable μ.
Note: You may either copy out the table in your answer, or, if your prefer, just fill in the blanks and hand in the exam paper with your answer.

Dealer's transaction	**Probability of this transaction**	**Price of stock in this transaction**	**Price paid by dealer for inventory restoration**	**Dealer's profit or loss**
Sells to informed client				
Sells to uninformed client				
Buys from informed client				
Buys from uninformed client				

A2. Briefly explain how the conclusions which emerge from this model need to be modified if we relax the following assumptions:

(i) Trading is confined to a single day so that information is never revealed to uninformed clients.

(ii) Information is exogenous.

(iii) V^H and V^L are independent of P^b and P^a.

Section B: (**Answer any TWO of the six questions in this section**).
This Section accounts for 60% of the total exam mark.
Each answer carries equal weight, i.e. 30% of the total exam mark.

B1. In what sense can financial instruments be described as contracts? Give examples that illustrate the different levels of complexity involved in particular cases, with particular reference to the regulatory problems arising as a result of asymmetricalal information between the contracting parties in each case.

B2. What trade-offs does the regulator face in addressing the issue of insider trading? Assess alternative standpoints towards the issues involved, with particular reference to the analysis of spread.

B3. Why is the financial sector, and banking in particular, subject to a greater degree of regulation and government intervention than other sectors of the economy? In your answer, discuss the capacity for self-regulation of EITHER one particular type of financial institution OR financial institutions in general.

B4. In what ways can the concept of asymmetricalal information be used to explain how financial intermediation can remedy the shortcomings of capital markets? Illustrate your answer with reference to EITHER the signalling role of bank lending OR the concept of delegated monitoring OR both.

B5. Explain the regulatory issues that arise in respect of measures to prevent bank runs. In your answer, comment on whether the economic analysis of the requirement for liquidity can clarify the issues involved.

B6. What principal-agent and regulatory issues arise in the relation between corporate management and holders of equity, and how are these issues affected by the issue to management of stock options?