

University of London

EXAMINATION FOR INTERNAL STUDENTS

For The Following Qualification:-

B.Sc.

ES3040: Financial Management

COURSE CODE : ENVS3040

UNIT VALUE : 0.50

DATE : 06-MAY-05

TIME : 14.30

TIME ALLOWED : 3 Hours

ENVS 3040 FINANCIAL MANAGEMENT

Answer Five Questions. All Questions Carry Equal Marks.

Question 1

Golden construction was founded in 1995. Its founder put up £2 million for 500,000 shares of common stock. Each share had a par value of £0.1.

- (a) Construct an equity account for Golden construction on the day after its founding. (6 marks)
- (b) After two years of operation, Golden construction generated earnings of £120,000 and paid no dividends. Construct the equity account at this point. (7 marks)
- (c) In the third year the company issued new shares again. This time one million additional shares for £5 per share were sold. It earned £250,000 during the year and paid no dividends. Construct the equity account at this point. (7 marks)

Question 2

What spot and forward rates are embedded in the following Treasury bonds? The price of one-year (zero-coupon) Treasury bills is 93.46 percent. Assume for simplicity that bonds make only annual payments.

Coupon(%)	Maturity (years)	Price (%)
4	2	94.92
8	3	103.64

(20 marks)

Question 3

- (a) Use examples to explain what factors determine the yield on corporate bonds. (10 marks)
- (b) Bond prices can fall either because of a change in the general level of interest rates, or because of an increased risk of default. To what extent do floating-rate bonds protect the investor against each of these risks? (10 marks)

Question 4

(a) Explain when it makes sense to use project finance rather than a direct debt issue by the parent company.

(6 marks)

(b) Lenders in project financings rarely have recourse against the project's owners if the project fails. Comment.

(7 marks)

(c) What are the main differences between project financing and corporate financing?

(7 marks)

Question 5

In 1995 the Premier construction group sold a share in some land that it owned for £110 million and as a result boosted its 1995 earnings by £74 million. In 1998 a television program revealed that the buyer was given a "put option" to sell its share in the land back to Premier construction for £110 million and that Premier construction had paid £20 million for a call option to repurchase the share in the land for the same price.

(a) What happens if the land is worth more than £110 million when the options expire? What if it is worth less than £110 million?

(5 marks)

(b) Use position diagrams to show the net effect of the land sale and the option transactions.

(5 marks)

(c) Assume a one-year maturity on the options. Can you deduce the interest rate?

(5 marks)

(d) The television program argues that it was misleading to record a profit on the sale of land. What do you think?

(5 marks)

Question 6

(a) Lonesome Mines has a standard deviation of 42 percent per year and a beta of +0.1. Brown Copper has a standard deviation of 31 percent a year and a beta of 0.66. Explain why Lonesome is the safer investment for a diversified investor.

(5 marks)

(b) Mr. Wiseman has invested 60 percent of his money in share A and the remainder in share B. He assesses their prospects as follows:

	A	B
Expected return	15	20
Standard deviation	20	22
Correlation between returns	0.5	

(i) What are the expected return and the standard deviation of return on his portfolio?

(2 marks)

(ii) Is Mr. Wiseman's portfolio better or worse than one invested entirely in share A, or is it not possible to say?

(3 marks)

(c) Illustrate why diversification has limits.

(5 marks)

(d) The Treasury bill rate is 4 percent, and the expected return on the market portfolio is 12 percent. On the basis of this capital asset pricing model, does a project provide a positive NPV if this project has a beta of 0.8 and an expected return of 9.8%.

(5 marks)

Question 7

(a) Illustrate the value of government loan guarantees from the perspective of option pricing theory.

(10 marks)

(b) Critically review the financial arrangement of the Channel Tunnel Rail Link Project.

(10 marks)

Question 8

(a) Illustrate the typical types of risks in project financing.

(10 marks)

(b) Use an example to demonstrate how financial instruments may be able to mitigate some of these typical risks.

(10 marks)

END OF PAPER