PROFESSIONAL LEVEL EXAMINATION

WEDNESDAY 18 MARCH 2015

(2½ hours)

FINANCIAL MANAGEMENT

This paper consists of **THREE** questions (100 marks).

1. Ensure your candidate details are on the front of your answer booklet. You will be given time to sign, date and print your name on the answer booklet, and to enter your candidate number on this question paper. You may not write anything else until the exam starts.

2. Answer each question in black ballpoint pen only.

3. Answers to each question must begin on a new page and must be clearly numbered. Use both sides of the paper in your answer booklet.

4. The examiner will take account of the way in which answers are presented.

5. When the assessment is declared closed, you must stop writing immediately. If you continue to write (even completing your candidate details on a continuation booklet), it will be classed as misconduct.

A Formula Sheet and Discount Tables are provided with this examination paper.

IMPORTANT

Question papers contain confidential information and must NOT be removed from the examination hall.

DO NOT TURN OVER UNTIL YOU ARE INSTRUCTED TO BEGIN WORK

You MUST enter your candidate number in this box.

1. Premier Transport Group plc (Premier) is a UK transport operator that has two divisions – (a) bus services and (b) express coach services. It has a financial year end of 30 April. Premier's board is investigating capital investment proposals for each of its divisions.

1(a) Bus division

The bus division is bidding for a three-year contract to operate a number of bus routes in a large tourist resort in the south of England. This contract covers the period from 1 May 2015 to 30 April 2018. Your colleagues in Premier's finance team have produced estimates of the incremental income and expenses (in 30 April 2015 prices) for the period of the contract as shown below:

Years to 30 April	**2016**	**2017**	**2018**
	£	**£**	**£**
Fares	918,400	2,250,000	3,450,000
Fuel costs	(432,000)	(446,400)	(489,600)
Other costs (see note)	(755,000)	(840,000)	(905,000)
Profit/(Loss) before taxation	(268,600)	963,600	2,055,400

Note
Premier is considering hiring eight extra buses to operate on this new contract. The annual hire cost per bus is £45,000 (which is allowable for tax) and this has been included in the 'other costs' figure above.

Bus purchase
As an alternative to the plan to hire the eight new buses, Premier's directors are considering whether it would be preferable to purchase them instead. These would cost £200,000 each on 30 April 2015 and would have a market value of £50,000 each (in 30 April 2018 prices) at the end of the contract. It is company policy to write off buses using the straight-line depreciation method.

The buses will attract 18% (reducing balance) capital allowances in the year of expenditure and in every subsequent year of ownership by the company, except the final year. In the final year, the difference between the buses' written down value for tax purposes and their disposal proceeds will be treated by the company either:

- as a balancing allowance, if the disposal proceeds are less than the tax written down value, or
- as a balancing charge, if the disposal proceeds are more than the tax written down value.

Inflation
Premier's directors estimate that all costs (except for hiring and depreciation) will increase by 3% pa, but they will cap fare increases at 2% pa.

Corporation tax
Assume that the rate of corporation tax will be 21% pa for the foreseeable future and that tax flows arise in the same year as the cash flows which gave rise to them.

Cost of capital
Premier uses a money cost of capital of 10% pa for investment appraisal purposes.

Cash flows
Assume that, unless otherwise instructed, all cash flows occur at the end of a financial year.

Requirements

(i) Using money cash flows, calculate the net present values on 30 April 2015 of the two proposals – bus hiring or bus purchase – and advise Premier's board which of the two proposals it should accept. **(16 marks)**

(ii) Calculate how sensitive your decision in (i) above is to the market value of the buses on 30 April 2018. **(4 marks)**

(iii) Estimate the internal rate of return of the bus purchase proposal and explain the advantages and disadvantages of this method of investment appraisal. **(5 marks)**

1(b) Express coach division

Premier's fleet of medium-sized express coaches operates on long distance routes across the UK. Its board wishes to establish the most cost effective method of replacing its coaches. Your colleagues in Premier's finance team have produced the following estimates of capital and running costs:

Coach type	**Deluxe**	**Mid-Range**	**Economy**
Purchase price	£260,000	£210,000	£160,000
Annual running costs (in money cash flows)	£57,000	£54,000	£70,000
Estimated life (in years)	6	4	3

The expected life of the Economy coach could be doubled to six years, but this would mean that the coach would require £90,000 of refurbishment costs at the end of the third year and that its annual running costs for years 4 to 6 would be £85,000.

It can be assumed that all costs are paid at the end of the year to which they relate, with the exception of the initial purchase price which is paid at the time of purchase. Premier's directors would like to assume that the market value of each type of coach at the end of its life will be nil.

Requirement

Advise Premier's board (showing supporting workings) as to which coach type should be purchased, assuming that Premier wishes to minimise the present value of its costs. **(10 marks)**

Note: Ignore inflation and taxation when answering part (b).

Total: 35 marks

2. **You should assume that the current date is 31 March 2015**

You work in the finance team at Perryfield Paper plc (PP) a listed UK paper manufacturer which has a financial year end of 31 March.

PP currently has a very healthy level of liquid funds (approximately £8.5m) in its bank accounts. At the company's most recent board meeting the following issues were discussed:

- should the firm's current weighted average cost of capital (WACC) figure of 6.5% be amended? This figure has been used for many years and the directors are concerned that this rate does not represent current market conditions.
- should the dividend growth model or the capital asset pricing (CAPM) model be used to calculate the WACC?
- should PP's long-term funding be restructured?

Cost of capital

The figures below have been given to you for the year ended/at 31 March 2015:

Type of capital (nominal value)	**Total dividends/interest**	**Total market value**	**Total nominal value**
Ordinary shares (25p)	£4,976,400	£63,800,000	£14,500,000
Preference shares (50p)	£313,200	£5,400,000	£2,000,000
Irredeemable debentures (£100)	£405,000	£14,175,000	£13,500,000

Note 1: All dividends have been paid for the year ended 31 March 2015. Ordinary dividends have been growing at a steady rate of 2% pa for the past five years.

Note 2: All debenture interest payable for the year to 31 March 2015 has been paid.

Restructuring the long-term funding

Two mutually-exclusive proposals have been made to restructure PP's capital:

(1) Purchase and cancel all of PP's irredeemable debentures at their current market value. Issue 4% coupon debentures with a nominal value of £9 million, redeemable in four years' time at par.

(2) Buy back 10% of PP's ordinary shares.

Assume that the corporation tax rate will be 21% pa for the foreseeable future.

Requirements

(a) Using the dividend growth model, calculate PP's current WACC on 31 March 2015. **(8 marks)**

(b) Giving reasons, advise PP's directors whether they should use the WACC figure from part (a) when appraising potential investments rather than the current figure of 6.5%. **(4 marks)**

(c) Discuss the logic underpinning the CAPM and explain how the CAPM can be used to calculate the WACC. **(7 marks)**

(d) For proposal (1), if, at their issue date, the market gross redemption yield for similar redeemable debentures is 5% pa, calculate the issue price of the new redeemable debentures and the total funds raised. **(4 marks)**

(e) For proposal (2), explain how a share buy-back works and the implications of a buy-back for PP's individual shareholders, ignoring any impact on PP's gearing. **(5 marks)**

(f) Making reference to relevant theories, discuss how the share buy-back would affect PP's gearing and its WACC. **(7 marks)**

Total: 35 marks

3. **You should assume for all parts of this question that the current date is 1 April 2015**

Chamberlain Jeffries plc (CJ) is a UK-listed international logistics company which started trading in 1982. Its financial year end is 31 March. You are an ICAEW Chartered Accountant who works in CJ's corporate treasury team. At a recent meeting with your manager it was agreed that you will be involved with three tasks: (1) hedging the interest on a planned loan, (2) hedging CJ's share portfolio investment using options and (3) hedging CJ's share portfolio investment using futures.

3(a) Task 1

You have been asked by your line manager to evaluate whether or not CJ should use interest rate futures to hedge against interest rate movements on a loan. CJ's board is planning to borrow £11.5 million for a nine month period from 1 June 2015 to 28 February 2016 and is worried that interest rates will increase from their current level of 8% pa. The current price of June sterling 3-months futures is 91.50 and the standard contract size is £500,000.

Requirement

Demonstrate how sterling interest rate futures can be used by CJ to hedge against interest rate movements, commenting on your results, if by 1 June 2015:

(i) interest rates decrease to 6.5% pa and the futures price alters by 1.75%
(ii) interest rates increase to 9% pa and the futures price alters by 1%
(iii) interest rates increase to 10% pa and the futures price alters by 2.25%

(10 marks)

3(b) Task 2

CJ has invested in a portfolio of UK FTSE100 shares which is worth £18.225 million on 1 April 2015. The spot value of the FTSE100 index on that date is 6,750.

CJ's board wishes to explore the implications of hedging the company against a potential fall in share prices in the next month. Accordingly, it is considering the use of (i) traded FTSE100 index options or (ii) FTSE100 stock index futures.

Index options

The following information has been gathered:

FTSE 100 INDEX OPTION (£10 per full index point)

Exercise price	6,650		6,700		6,750		6,800		6,850	
	Call	Put	Call	Put	Call	Put	Call	Put	Call	Put
May	215	95	184	115	154	135	125	159	105	191
June	272	131	241	152	217	176	186	197	162	221

Assume that the board decides to use options to protect the current value of the portfolio in one month's time.

Requirement

Explain, with supporting workings, what will happen in one month's time if:

- the portfolio's value falls to £17.955 million and the FTSE100 index falls to 6,650
- the portfolio's value rises to £18.360 million and the FTSE100 index rises to 6,800

(8 marks)

3(c) Task 3

Index futures

As an alternative to hedging the £18.225 million portfolio with options, CJ's board is considering using FTSE100 stock index futures. At 1 April 2015 the quote for FTSE100 stock index futures in one month is 6,720 and the face value of a FTSE100 index contract is £10 per index point.

Requirement

Calculate the outcome of this hedge if in one month's time the portfolio's value falls to £17.955 million and the FTSE100 stock index futures contract falls to 6,630. Comment on whether this hedge has been effective and identify the reasons for any inefficiency which may arise when using futures contracts.

(8 marks)

3(d)

Since September 2014 CJ's board has held several meetings with the board of another large UK-listed logistics company, Osman Lloyd plc. They have been discussing the potential merger of the two firms. Whilst news of this merger is known only to a few people at both firms, one of your friends in CJ's corporate treasury team has recently provided financial advice to the board.

Your friend is convinced that CJ's share price will rise considerably once the news becomes public knowledge. He has told you: "I know that you can't buy shares, but tell your friends about the merger. They will make a nice profit and so could you, if you're careful."

Requirement

What are the ethical issues for you as regards this information?

(4 marks)

Total: 30 marks