**This paper is not to be removed from the Examination Halls**

**UNIVERSITY OF LONDON** **279 0091 ZB**

**BSc degrees and Diplomas for Graduates in Economics, Management, Finance and the Social Sciences, the Diploma in Economics and Access Route for Students in the External Programme**

**Financial Reporting**

Monday, 12 June 2006 : 2.30pm to 5.30pm

Candidates should answer **FOUR** of the following **SEVEN** questions. All questions carry equal marks.

Workings should be submitted for all questions requiring calculations. Any necessary assumptions introduced in answering a question are to be stated.

Extracts from compound interest tables are given at the end of the paper.

8 column accounting paper is provided. If used, it must be fastened securely inside the answer book.

A hand held calculator may be used when answering questions on this paper but it must not be pre-programmed or able to display graphics, text or algebraic equations. The make and type of machine must be stated clearly on the front cover of the answer book.

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UL06/122

## Question 1

On 1 January 2005, Chris invested her entire wealth of £940,000 in an investment portfolio, which she expected would yield a net cash inflow of £84,200 in 2005 and £89,600 in 2006 and all subsequent years. The market interest rate on 1 January 2004 was 15% per annum, and was expected to remain at that level in future years. Chris actually received a net cash inflow of £85,000 in 2005, and on 31 December 2005 she now expects to receive a net cash inflow of £85,000 in all future years. The market interest rate fell suddenly to 10% per annum on 31 December 2005 and was expected to remain at the new level indefinitely.

**Required:**

(a) Making and stating any necessary assumptions consistent with the information given, calculate Chris's income for 2005 using the *ex ante* and both versions of the *ex post* measures of 'Income Number 1' and 'Income Number 2' as developed by Hicks. Explain clearly the conceptual justification for each of these six different ways of measuring economic income. **(10 marks)**

(b) How far are Hicks's alternative models of income of assistance in resolving issues of how profits and losses should be reported in financial statements? **(15 marks)**

## Question 2

The summarised historical cost balance sheet of Woodvile plc at 1 January 2005 was as follows:

| | £ | £ |
|---|---|---|
| Plant and Machinery – cost | | 240,000 |
| – depreciation | | 60,000 |
| | | 180,000 |
| Stock at cost | 100,000 | |
| Trade debtors | 80,000 | |
| Cash at bank | 30,000 | |
| | 210,000 | |
| Trade Creditors | 120,000 | 90,000 |
| | | 270,000 |
| Debentures (10% redeemable 2023) | | 30,000 |
| | | 240,000 |
| Ordinary Shares of £1 | | 150,000 |
| Profit and loss account | | 90,000 |
| | | 240,000 |

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The historical cost profit and loss account for the year ended 31 December 2005 was as follows:

| | £ | £ |
|---|---|---|
| Sales | | 900,000 |
| Cost of Sales: | | |
| Stock at 1 January 2005 | 100,000 | |
| Purchases | 440,000 | |
| | 540,000 | |
| Stock at 31 December 2005 | 140,000 | 400,000 |
| | | 500,000 |
| Sundry Expenses | 263,000 | |
| Depreciation | 30,000 | 293,000 |
| | | 207,000 |
| Debenture Interest | | 3,000 |
| | | 204,000 |

You have the following additional information:

(1) During 2005 sales, purchases of goods for resale and sundry expenses occurred evenly throughout the year. All of these transactions took place for cash, except for one sale on credit of £100,000, which took place on 30 September; this debt was still outstanding on 31 December 2005.

(2) The trade debtors at 1 January 2005 settled their accounts on 31 March 2005; the trade creditors outstanding at 1 January 2005 were paid on 30 June 2005.

(3) The plant and machinery is being depreciated on a straight line basis to zero residual value over 8 years. On 30 September 2005 the company purchased a piece of freehold land costing £62,000. A deposit of £12,000 was paid on that date; the balance of the amount due was still outstanding on 31 December 2005. No depreciation is provided on freehold land.

(4) The opening stock at 1 January 2005 had been purchased on average on 30 September 2004. The stock of goods for resale at 31 December 2005 had been purchased on average on 30 September 2005.

(5) Interest is payable on the debentures annually on 31 December.

(6) There had been no change in any relevant special price index or in the general index of prices from the date Woodvile plc was incorporated up until 2005. During 2005 the following index movements took place:

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| | Stocks (Replacement Cost) | Plant and Machinery (Replacement Cost) | General Index of prices |
|---|---|---|---|
| 1 January | 150 | 100 | 200 |
| 31 March | 160 | 104 | 210 |
| 30 June (=average for year) | 175 | 110 | 220 |
| 30 September | 190 | 116 | 230 |
| 31 December | 200 | 121 | 242 |

There was no change in the replacement cost of the land between 30 September 2005 and 31 December 2005.

**Required:**

(a) Prepare a profit and loss account for Woodvile plc for the year ended 31 December 2005 (**not** a Balance Sheet) under each of the following conventions:

i. Current purchasing power accounting stabilised in £s of 31 December 2005 and including in the profit and loss account the gain on long term borrowing and the total gain or loss on short term net monetary items. **(7 marks)**

ii. Current value accounting, incorporating replacement costs for assets sold, held and consumed, based on financial capital maintenance, measured in money terms. Base depreciation on the year-end value of fixed assets. **(6 marks)**

iii. Fully stabilised current value accounting, incorporating replacement costs for assets sold, held and consumed, based on financial capital maintenance, stabilised in £s of 31 December 2005 and including in the profit and loss account the real gain on long term borrowing and the total real gain or loss on short term net monetary items. Base depreciation on the year-end value of fixed assets. **(7 marks)**

(b) Explain the meaning, and significance to users of accounts, of current operating profit, holding gains and losses, and gains and losses on monetary items. **(5 marks)**

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**Question 3**

Greetingcom plc owns a machine for the production of exclusive greeting cards which was purchased on 1 January 2003 at a cost of £800,000. When purchased it was expected to have a five year useful economic life. It has constant annual operating costs of £300,000 and required an overhaul costing £15,000 at the end of the third year of its life. It has a scrap value at the end of its useful economic life (or at any other time) of £25,000. It has no net realisable value other than as scrap. It produces a constant annual output of 90,000 cards, all of which can be sold at the existing price of £7.50 each.

During 2003 a new model of the machine came on the market. It costs £1,200,000 and has a seven year useful economic life. It has operating costs of £190,000 per annum in each of the first two years of its useful life and £250,000 per annum in each of the remaining five years. It produces a constant annual output of 100,000 cards, all of which can be sold at the existing price. At the end of its useful life it is estimated that it would cost £10,000 (net of the proceeds of its sale as scrap) to dismantle and remove it. The arrival of the new model is not expected to affect the operating costs, output or scrap value of the existing machine.

The company's cost of capital is 10% per annum. A replacement machine would be paid for at the time of replacement; all other cash flows may be assumed to occur at the end of the years concerned.

**Required:**

(a) Prepare a schedule as at 1 January 2003 showing each of the years ended 31 December 2003, 31 December 2004 and 31 December 2005 the forecast depreciation charge on the card-making machine, and its net book value at the end of each of those three years, using the annuity method of depreciation and assuming that there was no knowledge of the new model at that date. **(7 marks)**

(b) Calculate the deprival value of the card-making machine at 31 December 2005 in each of the following situations (taking each situation independently of the other):

i. that the selling price of exclusive cards would continue at its present level of £7.50 each for the foreseeable future. **(7 marks)**

ii. that following the introduction by a competitor of electronic greeting cards, the selling price of Greetingcom cards was expected to fall to £4 each from 1 January 2006 and to remain at that level during 2006 and to fall to £3 each from 1 January 2007 and to remain at that level for the foreseeable future thereafter. **(6 marks)**

(c) Explain why the value you have calculated in (b)i. above differs from the foreseeable net book value at 31 December 2005 calculated in (a) above. **(5 marks)**

**Question 4**

Salt plc is a large manufacturer of condiments. Pepper plc is a wholesaler of bottle sauces, and a major customer of Salt plc. On 1 March 2005, Salt made an offer to the shareholders of Pepper to purchase their shares on the following terms: 10 shares of £1 and £20 nominal of 8% Unsecured Loan Stock 2015 in Salt for every 9 shares of £1 in Pepper, with a cash alternative of 340p per share. The offer was conditional on Salt's receiving acceptances in respect of at least 50% of the shares of Pepper by the closing date of 30 June 2005.

By 31 May 2005, Salt had received the required number of acceptances, and the offer was declared unconditional. By the closing date, the offer of shares and loan stock in Salt had been accepted in respect of 45% of the shares in Pepper and the cash alternative in respect of a further 15%. The holders of the remaining 40% did not accept the offer.

You ascertain the following information:

(1) Salt's share price during 2005 was:

| | |
|---|---|
| 1 March | 140p |
| 31 May | 178p |
| 30 Sept | 195p |

(2) The Unsecured Loan Stock was quoted at par from its date of issue to 30 September 2005. Interest is payable half-yearly on 15 February and 15 August. The chief accountant has not yet made an accrual for interest arising up to 30 September 2005.

(3) During the year to 30 September, exactly 20% of Salt's sales were made to Pepper, all of which were paid in cash. These occurred evenly through the year, and Salt set its selling price by adding a mark-up of 50% to cost price. Throughout the year Pepper held stocks of goods bought from Salt equal to exactly one month's purchases.

(4) On 1 August 2005, Salt made a loan of £10m to Pepper. Interest at a rate of 12% per annum is payable by Pepper in cash every two months. On 29 September 2005, Pepper sent a cheque for two months' interest to Salt. This cheque was received and banked by Salt on 3 October 2005, on which day the interest was reflected for the first time in Salt's accounting records. This loan had been included by Salt's accountant in the 'Investment Account – Pepper plc'.

(5) The land and buildings of Pepper were valued in 2005 at £30m, and it was accepted that this represented a fair value at all dates during the year. The other assets and liabilities shown in Pepper's accounts were agreed to be stated at fair value.

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(6) Salt plc amortises goodwill on a straight line basis over 20 years.

The draft accounts prepared by the chief accountant of Salt are as follows:

| | Salt | | Pepper | |
|---|---|---|---|---|
| | **£m** | **£m** | **£m** | **£m** |
| **Profit and Loss Accounts year ended 30 Sept 2005** | | | | |
| Turnover | | 144.0 | | 58.8 |
| Cost of Sales | | 96.0 | | 46.8 |
| Gross Profit | | 48.0 | | 12.0 |
| Distribution costs | 15.6 | | 4.8 | |
| Administration costs | 10.7 | 26.3 | 3.6 | 8.4 |
| Operating Profit | | 21.7 | | 3.6 |
| Interest Payable | | - | | 0.2 |
| Profit on Ordinary Activities | | 21.7 | | 3.4 |
| Dividends: interim | 2.5 | | 0.5 | |
| Final | 5.5 | 8.0 | - | 0.5 |
| Retained Profit | | 13.7 | | 2.9 |

| | Salt | | Pepper | |
|---|---|---|---|---|
| | **£m** | **£m** | **£m** | **£m** |
| **Balance Sheets as at 30 Sept 2005** | | | | |
| Tangible Fixed Assets | | | | |
| Land and Buildings | 33.3 | | 22.5 | |
| Plant and Machinery | 23.9 | 57.2 | 8.2 | 30.7 |
| Investment Account-Pepper plc | | 34.0 | | - |
| Current Assets | | | | |
| Stock | 12.2 | | 3.9 | |
| Debtors | 19.2 | | 2.6 | |
| Cash | 3.7 | | - | |
| | 35.1 | | 6.5 | |
| Creditors: amounts falling due within one year | | | | |
| Bank Overdraft | - | | 2.2 | |
| Trade and Other Creditors | 14.6 | | 1.5 | |
| Proposed Dividends | 5.5 | | - | |
| | 20.1 | | 3.7 | |
| Net Current Assets | | 15.0 | | 2.8 |
| Total Assets less current liabilities | | 106.2 | | 33.5 |
| Creditors: amounts falling due after one year | | | | |
| 8% Unsecured Loan Stock | | 10.0 | | - |
| Loan from Group | | - | | 10.0 |
| Net Assets | | 96.2 | | 23.5 |

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| | Salt | Pepper |
|---|---|---|
| | £m | £m |
| **Capital and Reserves** | | |
| Share Capital | 55.0 | 10.0 |
| Share Premium | 3.9 | - |
| Profit and Loss Account | 37.3 | 13.5 |
| | 96.2 | 23.5 |

**Required:**

Prepare the consolidated balance sheet for Salt plc, as at 30 September 2005.

**Question 5**

Phedora plc entered into the following transactions during the year ended 31 December 2005:

(1) On 1 March the company entered into a two year agreement to hire a chopping machine from Higherko. These machines have a useful economic life of eight years. Higherko provides service cover for repairs and maintenance as part of the annual rental of £6,000, payable in monthly instalments. To buy a new chopping machine now would cost £36,000.

(2) On 1 January 2005 the company signed a five year lease for the hire of a pounding plant. The plant has a useful economic life of five years from that date with no residual value, and Phedora plc is responsible for all repairs and maintenance. To buy a new pounding plant would cost £60,000. The lease provided for an initial payment of £10,000 on 1 January 2005 followed by ten half-yearly payments of £6,800, payable on 30 June and 31 December each year. The interest rate implicit in the lease is 6% per half year. For similar assets which it owns Phedora plc uses straight-line depreciation.

(3) On 1 September the company sold goods to a customer in Amnesia (where the unit of currency is the $Amn) for $Amn 15,000. The customer paid in full on 31 October. On 1 September the exchange rate was £1 = $Amn 2.5, and on 31 October it was £1 = $Amn 3.

(4) On 1 September the company raised a loan of $Amn 400,000 in Amnesia. The loan was used to purchase a piece of freehold land on 1 September. The land cost $Amn 400,000. Phedora plc intends building a local sales office on the land during 2006. Interest is payable on 31 December each year at 10% per annum, and the loan is repayable on 31 December 2010. On 1 September the exchange rate was £1 = $Amn 2.5 and on 31 December it was £1 = $Amn 3.2.

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(5) On 1 January 2005 the company issued 7% debentures with a nominal value of £300,000. The debentures were issued at a discount and the amount raised, net of issue costs, was £220,000. They are redeemable at a premium of 5% (i.e., at £315,000) on 31 December 2014. Interest is payable on 31 December each year. The effective rate of interest in the arrangement is 12% per annum.

**Required:**

(a) Show how each of the above transactions will be treated in the final accounts of Phedora plc for the year ended 31 December 2005 in accordance with standard accounting practice. Deal separately with each transaction. For (1) and (2), justify your treatment. **(20 marks)**

(b) Phedora plc has also made an investment in Ferrick plc. What factors would determine whether Ferrick plc should be treated as an associate?

**(5 marks)**

## Question 6

**Either**

'For most companies, the deprival value of most assets will be replacement cost. Therefore corporate financial reports might just as well be based on replacement cost in all cases so as to avoid the subjectivity inherent in using deprival value.' Explain and comment on this statement.

**Or**

Explain the differences between merger accounting and acquisition accounting. Discuss why managers might prefer to use merger accounting and why the FASB banned it.

## Question 7

**Either**

Discuss the usefulness of the Accounting Standards Board's *Statement of Principles for Financial Reporting.*

**Or**

'Accountants should stop using historical cost accounting and should instead reporting income in accordance with the principles developed by Sir John Hicks.' Discuss this statement.

**Extracts from compound interest tables**

**(1) Present value of £1**

| % / Period | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.990 | 0.980 | 0.971 | 0.962 | 0.952 | 0.943 | 0.935 | 0.926 | 0.917 | 0.909 |
| 2 | 0.980 | 0.961 | 0.943 | 0.925 | 0.907 | 0.890 | 0.873 | 0.857 | 0.842 | 0.826 |
| 3 | 0.971 | 0.942 | 0.915 | 0.889 | 0.864 | 0.840 | 0.816 | 0.794 | 0.772 | 0.751 |
| 4 | 0.961 | 0.924 | 0.888 | 0.855 | 0.823 | 0.792 | 0.763 | 0.735 | 0.708 | 0.683 |
| 5 | 0.951 | 0.906 | 0.863 | 0.822 | 0.784 | 0.747 | 0.713 | 0.681 | 0.650 | 0.621 |
| 6 | 0.942 | 0.888 | 0.837 | 0.790 | 0.746 | 0.705 | 0.666 | 0.630 | 0.596 | 0.564 |
| 7 | 0.933 | 0.871 | 0.813 | 0.760 | 0.711 | 0.665 | 0.623 | 0.583 | 0.547 | 0.513 |

| % / Period | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.901 | 0.893 | 0.885 | 0.877 | 0.870 | 0.862 | 0.855 | 0.847 | 0.840 | 0.833 |
| 2 | 0.812 | 0.797 | 0.783 | 0.769 | 0.756 | 0.743 | 0.731 | 0.718 | 0.706 | 0.694 |
| 3 | 0.731 | 0.712 | 0.693 | 0.675 | 0.658 | 0.641 | 0.624 | 0.609 | 0.593 | 0.579 |
| 4 | 0.659 | 0.636 | 0.613 | 0.592 | 0.572 | 0.552 | 0.534 | 0.516 | 0.499 | 0.482 |
| 5 | 0.593 | 0.567 | 0.543 | 0.519 | 0.497 | 0.476 | 0.456 | 0.437 | 0.419 | 0.402 |
| 6 | 0.535 | 0.507 | 0.480 | 0.456 | 0.432 | 0.410 | 0.390 | 0.370 | 0.352 | 0.335 |
| 7 | 0.482 | 0.452 | 0.425 | 0.400 | 0.376 | 0.354 | 0.333 | 0.314 | 0.296 | 0.279 |

**(2) Annuity of £1**

| % / Period | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.990 | 0.980 | 0.971 | 0.962 | 0.952 | 0.943 | 0.935 | 0.926 | 0.917 | 0.909 |
| 2 | 1.970 | 1.942 | 1.913 | 1.886 | 1.859 | 1.833 | 1.808 | 1.783 | 1.759 | 1.736 |
| 3 | 2.941 | 2.884 | 2.829 | 2.775 | 2.723 | 2.673 | 2.624 | 2.577 | 2.531 | 2.487 |
| 4 | 3.902 | 3.808 | 3.717 | 3.630 | 3.546 | 3.465 | 3.387 | 3.312 | 3.240 | 3.170 |
| 5 | 4.853 | 4.713 | 4.580 | 4.452 | 4.329 | 4.212 | 4.100 | 3.993 | 3.890 | 3.791 |
| 6 | 5.795 | 5.601 | 5.417 | 5.242 | 5.076 | 4.917 | 4.767 | 4.623 | 4.486 | 4.355 |
| 7 | 6.728 | 6.472 | 6.230 | 6.002 | 5.786 | 5.582 | 5.389 | 5.206 | 5.033 | 4.868 |

| % / Period | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.901 | 0.893 | 0.885 | 0.877 | 0.870 | 0.862 | 0.855 | 0.847 | 0.840 | 0.833 |
| 2 | 1.713 | 1.690 | 1.668 | 1.647 | 1.626 | 1.605 | 1.585 | 1.566 | 1.547 | 1.528 |
| 3 | 2.444 | 2.402 | 2.361 | 2.322 | 2.283 | 2.246 | 2.210 | 2.174 | 2.140 | 2.106 |
| 4 | 3.102 | 3.037 | 2.974 | 2.914 | 2.855 | 2.798 | 2.743 | 2.690 | 2.639 | 2.589 |
| 5 | 3.696 | 3.605 | 3.517 | 3.433 | 3.352 | 3.274 | 3.199 | 3.127 | 3.058 | 2.991 |
| 6 | 4.231 | 4.111 | 3.998 | 3.889 | 3.784 | 3.685 | 3.589 | 3.498 | 3.410 | 3.326 |
| 7 | 4.712 | 4.564 | 4.423 | 4.288 | 4.160 | 4.039 | 3.922 | 3.812 | 3.706 | 3.605 |

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