# National University of Science and Technology

## FACULTY OF COMMERCE

## DEPARTMENT OF ACCOUNTING

**SECOND SEMESTER EXAMINATION PAPER: 2011/2012**

**DATE: MAY 2012**

**SUBJECT: FINANCIAL MANAGEMENT: CAC 4204**

**TIME ALLOWED: THREE (3) HOURS**

**MARKS: 100**

**<u>INSTRUCTIONS TO CANDIDATES</u>**

1. Answer any four (4) questions
2. Use the examination book provided
3. Use black or blue pen
4. Begin each question on a new page and
5. Submit all answer books
6. Maths tables are provided

## QUESTION ONE [25 MARKS]

P is a privately owned college of higher education in the UK. It competes directly with other private and government funded schools and colleges. The college directors are considering two investment opportunities that would allow the college to expand in the UK (known as projects A and B) and a third opportunity to set up a satellite training centre in a foreign country (known as Project C). Ideally, it would invest in all three projects but the company has only GBP25 million of cash available (where GBP is British Pounds). P currently has borrowings of GBP 50 million and does not wish to increase indebtedness at the present time. P's shares are not listed.

The initial capital investment required (on 1 January 2011) and likely net operating cash inflows arising from the investments in each project are as follows.

| **Project** | **Initial investment GBP*million*** | **Net operating cash inflows *(after tax)*** |
|---|---|---|
| Project A | 15.5 | GBP 1.75 million each year from year 1 indefinitely |
| Project B | 10.20 | GBP 1.15 million in year 1, and GBP 3.10 million a year in years 2 to 7 |
| Project C | 9.50 | A$9.30 million each year for years 1 to 5 |
| | | |

**Notes:**

- **(i)** The projects are not divisible
- **(ii)** Project B has a residual value of GBP 2.5 million. The other projects are expected to have no residual value.
- **(iii)** Projects A and B are to be discounted at 8%. The Finance Director considers that a GBP discount rate of 9% is more appropriate for Project C as it carries slightly greater risk.
- **(iv)** The GBP/A$ exchange rate is expected to be GBP/A$ 2.00 on 1 January 2011 (that is, GBP 1=A$ 2.00). The A$ is expected to weaken against GBP by 1.5% per annum for the duration of the project.
- **(v)** Assuming cash flows, other than the initial investment, occur at the end of each year.

**Required**

- **(a)** Calculate the NPV and PI of each of the THREE projects based on the GBP cash flows. **[10]**
- **(b)** Evaluate your results and advise P which project or combination of projects to accept. **[7]**
- **(c)** Discuss the key financial factors, other than the NPV decision, that should be considered before investing in a project located in a foreign country rather than the home country. **[8]**

**QUESTION TWO [25 MARKS]**

HJK is a long established, family owned and run, IT Consultancy Company. The company has experienced rapid growth in recent years. In recent years, investment has been funded by cash held generated by the business but HJK now requires additional funds to finance significant expansion. The Directors have considered additional bank finance but their preference is for an initial public offering (IPO), that is, an offer for sale of shares to the public. However, the Directors are concerned about the implications of an IPO on the financial strategy of the company in the areas of dividend, financing and investment.

**Required:**

- **(a)** Describe the process involved in an IPO. **[4]**
- **(b)** Advise on the potential risks with an IPO and what action can be taken to minimise such risks. **[6]**
- **(c)** Discuss the concerns of the Directors regarding the possible implications of becoming a listed company on dividend, financing and investment decisions and the interrelationship between them. **[15]**

**QUESTION THREE [25 MARKS]**

**Blue**

Blue is a multinational furniture retailer listed on its local exchange stock exchange. It has experienced rapid growth in recent years, partly via acquisitions and partly by generic growth. A substantial proportion of the shareholders are institutional investors but there is also a significant proportion of shares held by private individuals.

Blue follows a conservative dividend policy, paying a relatively low dividend with a small but steady growth in dividend levels. This has led to the accumulation of surplus funds. Mr B, a director of a major institutional shareholder of Blue, has recently requested that surplus funds be returned to shareholders. The Directors of Blue are currently considering this request.

**Green**

Green is a privately-owned, family-run small furniture retail chain with just 10 shareholders. Historically, Green's dividend payouts have varied considerably year on year. Recent payouts have been between 10% and 50% of the profits for the year, largely depending on investment opportunities available. In the current year, the shareholders have not been able to agree on an appropriate level of dividend. Mr G, one of the shareholders, is planning a major extension on his house and has requested a large dividend payment. However, the other shareholders wish to retain cash within the company for investment in future projects.

Both Blue and Green have primary financial objective of maximising shareholder value.

**Required:**

- **(a)** Discuss the rationale behind both Blue and Green's dividend policies and why a listed company such as Blue can be expected to have a different dividend policy to that of a private company such as Green. **[12]**
- **(b)** Explain Modigliani and Miller's dividend irrelevancy theory and its practical relevance to both Blue and Green in seeking to maximise shareholder value. **[13]**

**QUESTION FOUR [25 MARKS]**

Z plc is a Zimbabwe-based service entity with a number of wholly owned subsidiaries and interests in associated entities through out the world. In response to the rapid growth of the entity, the managing director has ordered a review of the entity's organisation structure, particularly the finance function. The managing director holds the opinion that a separate treasury department should be established. At present, treasury functions are the responsibility of the chief accountant.

**Requirements**

**(a)** Describe the main responsibilities of a treasury department in an entity such as Z plc and explain the benefits that might accrue from the establishment of a separate treasury function. **[15]**

**(b)** Describe the advantages and disadvantages that might arise if the entity established a separate treasury department as a profit centre rather than as a cost centre. **[10]**

**QUESTION FIVE [25 MARKS]**

RBZ is a private transport and distribution entity. It is considering three investment opportunities, which are not mutually exclusive. RBZ has no cash reserves, but could borrow a maximum of $30 million at the present time at a gross interest rate of 10%. Borrowing above this amount might be possible, but at a much higher rate of interest.

The initial capital investment required, the NPV and duration of each project is as follows:

| | **Initial investment $million** | **NPV $million (after tax)** | **Duration Years** |
|---|---|---|---|
| Project A | 15.4 | 2.75 | 6 |
| Project B | 19.0 | 3.60 | 7 |
| Project C | 12.8 | 3.25 | Indefinite |

**Notes:**

**(i)** The projects are not divisible and can not be postponed.

**(ii)** The discount rate considered appropriate for all three investments is 12% net of tax.

**(iii)** RBZ pays corporate tax at 30%.

**(iv)** Assume cash flows, other than initial investment, occur evenly throughout the duration of the investments.

**Required:**

**(a)** Calculate the profitability index and equivalent annual annuities for all three projects; explain the usefulness of these methods of evaluation in the circumstances here; and recommend which project(s) should be undertaken. **[12]**

**(b)** Explain the differences between ‘hard’ and ‘soft’ capital rationing and which type is evident in the scenario here. Discuss, briefly, the advisability of the directors of RBZ limiting their expenditure this way. **[8]**

**(c)** You later discovered that the discount rate used was nominal, but the cash flows have been calculated in real terms.
Explain, briefly, how the calculation for NPV should be adjusted and what effect the changes might have and on your recommendation. You are not required to do any calculations for this section of question. **[5]**

**END OF EXAMINATION PAPER**