CIMA

Business Management Pillar

Strategic Level Paper

P6 – Management Accounting – Business Strategy

24 May 2005 - Tuesday Morning Session

Instructions to candidates

You are allowed three hours to answer this question paper.
You are allowed 20 minutes reading time **before the examination begins** during which you should read the question paper, and if you wish, make annotations on the question paper. However, you will **not** be allowed, **under any circumstances,** to open the answer book and start writing or use your calculator during this reading time.
You are strongly advised to carefully read the question requirement before attempting the question concerned. The question requirements are contained in a dotted box.
Answer the ONE compulsory question in Section A on pages 2 and 3.
Answer TWO of the four questions in Section B on pages 4 to 7.
Maths Tables and Formulae are provided on pages 9 and 10. These pages are detachable for ease of reference.
Write your full examination number, paper number and the examination subject title in the spaces provided on the front of the examination answer book. Also write your contact ID and name in the space provided in the right hand margin and seal to close.
Tick the appropriate boxes on the front of the answer book to indicate which questions you have answered.

P6 – Business Strategy

Question One

Pipeco, a wholly owned subsidiary of an international chemical company (the parent group), has for the past twenty years manufactured, by an extrusion process, large bore plastic pipe for use in water, sewage and gas piping systems. (Extrusion is a process whereby hot plastic is forced through a die and takes the shape of the die.) Based in Western Europe, Pipeco has been the major supplier to the infrastructure building projects in most surrounding countries. Pipeco has operated from a single site. All projects, which typically last three or four years, are won by competitive tender and Pipeco has had a success rate, for many years, of over 80% of the contracts for which it has bid. Large bore, extruded pipe, is a commodity product sold, by the tonne, on price. Pipeco's dominant position, in a very competitive industry, has been achieved by its cost effectiveness and the high technical skill of its sales engineers.

In the last three years, revenue and profits have declined as existing building programmes have neared completion and no new projects have become available from current markets.

The directors of Pipeco feel that they cannot maintain the dividend to the parent group at the present levels beyond the current year. The parent group has made available to Pipeco a budget of $2 million for investment and has suggested a hurdle rate of 10% on any project undertaken. Although the parent group takes a strategic, long term view it is currently under pressure from the shareholders to at least increase the overall profitability of the group and maintain the dividend.

The parent group is particularly concerned about profitability over the next five years because of the cost of the expansion plans in other subsidiaries.

There are a number of possibilities which Pipeco wishes to consider including:

Option 1

Pipeco could expand geographically to countries which are beginning to improve their infrastructure. The recent expansion of the European Union is considered to be an opportunity over the coming years.

Preliminary investigations have identified two possible countries to which some of the existing extrusion plant and equipment could be relocated leaving sufficient capacity to finish existing orders.

Country A would involve an initial capital investment of $1·5 million and Country B would involve an initial capital investment of $2.0 million. Sales volumes, in tonnes *per year*, are as follows;

Years	*Country A* *Tonnes*	*Years*	*Country B* *Tonnes*
1 to 5	42,000	1 to 8	63,000
6 to 10	64,000	9 to 14	51,000
11 to 15	20,000		

Each tonne of product would sell for $90 and there would be variable costs of $85 per tonne.

Option 2

Pipeco could move into other areas of plastics, producing pipework and fittings for use within buildings. The manufacture of fittings would involve moulding, a very different manufacturing process. There are a number of established firms in that industry, although this is considered to be a strong growth industry within Western Europe, particularly at the prestige design end of the business where gross margins of 55% are quite common. Sales within the industry are made to retail outlets or, for larger building projects, by presentation to the architect.

Pipeco recognises that this is a different business model to that currently used and the approach used by some departments, notably marketing, will need to change. Research has shown that Pipeco could enter the market by investing an initial $1,450,000 in plant and equipment followed by a further $425,000 for plant and equipment payable at the end of the first year of operation. The market entry would be achieved by buying a small, underfunded company from the owner who wishes to retire. The purchase price is included within the total of $1,875,000. This company is based in Pipeco's current home market.

Research has shown that the project would give the following projected probabilities and cash contributions from sales per year for the next ten years;

Year	$000	$000	$000
1 - 10	300	435	265
probability	0·5	0·3	0·2

These figures will only be achieved if the investment in plant and equipment outlined above is carried out and do not reflect the level of performance under current ownership. The directors recognise that Pipeco will need to market more proactively and have decided to consider adopting relationship marketing for this option should it be selected. Pipeco realises that the adoption of relationship marketing would represent a significant change to the way the company operates.

Summary

Whichever option is chosen, Pipeco believes that, with the exception of depreciation, which is based on gross capital expenditure, there would be no increase in fixed costs. All capital expenditure is depreciated on a straight line basis over ten years.

Pipeco has a good employment record, with low staff turnover, and would prefer to retrain and possibly relocate (depending on the option selected) staff rather than make them redundant. It believes the staff would welcome this approach.

Required:

As the management accountant of Pipeco:

(a) Make reasoned recommendations on the selection of Options 1 and 2.

 Note: up to 16 marks will be awarded for calculations

(29 marks)

(b) Identify the additional information that would need to be gathered to compare and contrast the suitability of the two countries identified for possible relocation in Option 1.

(6 marks)

(c) (i) Briefly describe relationship marketing and explain how the approach would benefit the company.

(6 marks)

 (ii) Advise how the changes associated with the introduction of relationship marketing and the acquisition should be implemented if Option 2 is adopted.

(9 marks)

(Total for Question One = 50 marks)

(Total for Section A = 50 marks)

End of Section A

TURN OVER

Question Two

2XA is an established light engineering manufacturer operating in a single country within the European Union (EU). With 300 employees, the majority of whom are employed in the manufacturing processes, the company is run like a large family business. 2XA supplies components to specialist car manufacturers and manufacturers of light aircraft, all of which are small companies. 2XA has had the same customers for a number of years and there are many personal friendships between the senior management of 2XA and those who own or manage those customer companies.

Since most of 2XA's sales are a result of repeat business it does not actively market its products. What marketing it currently does consists of an occasional advert in trade magazines and attendance at trade fairs where the Sales Director, and a few office staff, offer light refreshments to their existing customers and anyone who stops at their stand.

In the past two years 2XA has started to lose customers to more aggressive suppliers from neighbouring countries, which have entered 2XA's home market. The board of directors is concerned at the loss of business and is not really sure why it has happened. It has decided that it is time to become more proactive in its approach to the market and feels the need to know more about both the competitive environment and the competitors themselves.

Required:

As the Management Accountant you have been asked to:

(a)   Explain what is meant by Industry Analysis using any models you consider appropriate.

(5 marks)

(b)   Describe the information that 2XA might include in such an analysis.

(10 marks)

(c)   Advise the directors as to the possible sources of the information which 2XA could use in performing an industry analysis.

(10 marks)

(Total for Question Two = 25 marks)

Question Three

The insurance industry is characterised by large organisations producing, packaging and cross-selling a number of different 'products' to their client base. Typical products include life insurance, health insurance, house insurance and house contents insurance. Therefore, cost efficiency, repeat business and database manipulation are of significant importance.

BXA is a medium sized insurance company that has grown over the past fifty years by a number of relatively small mergers and acquisitions. Its business is focused on life, automobile and private property insurance. Over the last few years the insurance industry has undergone significant change with increasing consolidation and the squeezing of margins.

The Board of BXA recognises that it is quite old fashioned in its approach to business, particularly in its attitude to information technology. Much of the computing is done on personal computers, many of which are not networked, using a variety of 'user written' programs. There are a number of different computer systems in the organisation that have been inherited from the companies that have been acquired in the past. However, these computer systems have not been fully consolidated. It is recognised that this lack of compatibility is causing efficiency problems.

BXA has recently been approached by CXA, an insurance company of a similar size, with a view to a merger. Although BXA has never combined with an organisation of this size before, the Board recognises that this merger could present an opportunity to develop into a company of significant size but that this may also present further problems of system incompatibility.

BXA has decided to proceed with the merger, but the Board recognises that this might only make the situation worse with regards to information management strategy of the resulting combined company.

The Finance Director has asked you, as project accountant, to investigate the potential of outsourcing the information technology function as part of the post-merger consolidation process.

Required:

(a) Discuss the advantages and disadvantages of outsourcing the IT function for the merged organisation at each of the strategic, managerial and tactical levels of the organisation.

(15 marks)

(b) Briefly describe the characteristics of the supplier that BXA will be looking for in the selection of the contractor to take on the outsourcing.

(5 marks)

(c) Identify the factors which should be included in the service level agreement with which the contractor will be expected to comply in achieving the levels of performance that BXA will require.

(5 marks)

(Total for Question Three = 25 marks)

TURN OVER

Question Four

D4D is a politically stable, developing country enjoying a temperate climate and a young, educated population, many of whom are educated to graduate level. Those who have studied at this level have tended to do so abroad since there are limited opportunities to do so in D4D.

The economy is mixed, based on agriculture and some light manufacturing but has enjoyed considerable revenue from oil exploration and production which is based offshore in its territorial waters. Some of this revenue is generated by providing services for the oil industry but the majority comes from a tax on every barrel of oil which the foreign oil companies extract.

The Government has used the revenue to keep personal and property taxes low and to support the largely uneconomic local industry. It now recognises that, although politically popular, this decision might not have been in the best long term interests of the country.

The Finance and Trade Minister of D4D is aware that the oil revenue may only last a further ten years. He wishes to build competitive advantage over the neighbouring countries. The Prime Minister is sceptical and has made the observation that "companies have competitive advantages not countries".

As a management accountant within the Ministry of Finance and Trade you have been asked to produce a number of documents, for both the Prime Minister and the Finance and Trade Minister, considering how competitive advantage could be achieved for D4D and examining the possibilities of attracting inward investment from foreign companies.

Required:

(a) Using any models you consider appropriate, explain the factors which lead to competitive advantage being present in particular countries.

(7 marks)

(b) Identify the aims that D4D should try to achieve in attracting appropriate investors into the country. You should also compare and contrast those aims with the likely aims of any company investing in D4D.

(10 marks)

(c) Explain the steps that D4D should take to make the country more attractive to appropriate inward investment.

(8 marks)

(Total for Question Four = 25 marks)

Question Five

E5E is a charity concerned with heart disease. Its mission statement is;

To fund world class research into the biology and the causes of heart disease.
To develop effective treatments and improve the quality of life for patients.
To reduce the number of people suffering from heart disease.
To provide authoritative information on heart disease.

E5E obtains funding from voluntary donations from both private individuals and companies, together with government grants. Much of the work it does, in all departments, could not be achieved without the large number of voluntary workers who give their time to the organisation and who make up approximately 80% of the workforce.

E5E does not employ any scientific researchers directly, but funds research by making grants to individual medical experts employed within universities and hospitals. In addition to providing policy advice to government departments, the charity's advisors give health educational talks to employers and other groups.

The Board recognises the need to become more professional in the management of the organisation. It feels that this can be best achieved by conducting a benchmarking exercise. However, it recognises that the introduction of this process may make some members of the organisation, particularly the volunteers, unhappy.

Required:

As Financial Controller;

(a) discuss the advantages and disadvantages of benchmarking for E5E.

(8 marks)

(b) provide advice on the stages in conducting a benchmarking exercise in the context of E5E.

(13 marks)

(c) provide advice on how those implementing the exercise should deal with the concerns of the staff, particularly the volunteers.

(4 marks)

(Total Question Five = 25 marks)

(Total for Section B = 50 marks)

End of Question Paper

Maths Tables and Formulae are on pages 9 and10

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MATHS TABLES AND FORMULAE

Present value table

Present value of $1, that is $(1 + r)^{-n}$ where r = interest rate; n = number of periods until payment or receipt.

Periods (n)	Interest rates (r)									
	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	0705	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
8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467
9	0.914	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.350
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239
16	0.853	0.728	0.623	0.534	0.458	0.394	0.339	0.292	0.252	0.218
17	0.844	0.714	0.605	0.513	0.436	0.371	0.317	0.270	0.231	0.198
18	0.836	0.700	0.587	0.494	0.416	0.350	0.296	0.250	0.212	0.180
19	0.828	0.686	0.570	0.475	0.396	0.331	0.277	0.232	0.194	0.164
20	0.820	0.673	0.554	0.456	0.377	0.312	0.258	0.215	0.178	0.149

Periods (n)	Interest rates (r)									
	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
8	0.434	0.404	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233
9	0.391	0.361	0.333	0.308	0.284	0.263	0.243	0.225	0.209	0.194
10	0.352	0.322	0.295	0.270	0.247	0.227	0.208	0.191	0.176	0.162
11	0.317	0.287	0.261	0.237	0.215	0.195	0.178	0.162	0.148	0.135
12	0.286	0.257	0.231	0.208	0.187	0.168	0.152	0.137	0.124	0.112
13	0.258	0.229	0.204	0.182	0.163	0.145	0.130	0.116	0.104	0.093
14	0.232	0.205	0.181	0.160	0.141	0.125	0.111	0.099	0.088	0.078
15	0.209	0.183	0.160	0.140	0.123	0.108	0.095	0.084	0.079	0.065
16	0.188	0.163	0.141	0.123	0.107	0.093	0.081	0.071	0.062	0.054
17	0.170	0.146	0.125	0.108	0.093	0.080	0.069	0.060	0.052	0.045
18	0.153	0.130	0.111	0.095	0.081	0.069	0.059	0.051	0.044	0.038
19	0.138	0.116	0.098	0.083	0.070	0.060	0.051	0.043	0.037	0.031
20	0.124	0.104	0.087	0.073	0.061	0.051	0.043	0.037	0.031	0.026

Cumulative present value of $1 per annum, Receivable or Payable at the end of each year for n years

$$\frac{1-(1+r)^{-n}}{r}$$

Periods	Interest rates (r)									
(n)	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
8	7.652	7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145
11	10.368	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495
12	11.255	10.575	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814
13	12.134	11.348	10.635	9.986	9.394	8.853	8.358	7.904	7.487	7.103
14	13.004	12.106	11.296	10.563	9.899	9.295	8.745	8.244	7.786	7.367
15	13.865	12.849	11.938	11.118	10.380	9.712	9.108	8.559	8.061	7.606
16	14.718	13.578	12.561	11.652	10.838	10.106	9.447	8.851	8.313	7.824
17	15.562	14.292	13.166	12.166	11.274	10.477	9.763	9.122	8.544	8.022
18	16.398	14.992	13.754	12.659	11.690	10.828	10.059	9.372	8.756	8.201
19	17.226	15.679	14.324	13.134	12.085	11.158	10.336	9.604	8.950	8.365
20	18.046	16.351	14.878	13.590	12.462	11.470	10.594	9.818	9.129	8.514

Periods	Interest rates (r)									
(n)	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
8	5.146	4.968	4.799	4.639	4.487	4.344	4.207	4.078	3.954	3.837
9	5.537	5.328	5.132	4.946	4.772	4.607	4.451	4.303	4.163	4.031
10	5.889	5.650	5.426	5.216	5.019	4.833	4.659	4.494	4.339	4.192
11	6.207	5.938	5.687	5.453	5.234	5.029	4.836	4.656	4.486	4.327
12	6.492	6.194	5.918	5.660	5.421	5.197	4.988	7.793	4.611	4.439
13	6.750	6.424	6.122	5.842	5.583	5.342	5.118	4.910	4.715	4.533
14	6.982	6.628	6.302	6.002	5.724	5.468	5.229	5.008	4.802	4.611
15	7.191	6.811	6.462	6.142	5.847	5.575	5.324	5.092	4.876	4.675
16	7.379	6.974	6.604	6.265	5.954	5.668	5.405	5.162	4.938	4.730
17	7.549	7.120	6.729	6.373	6.047	5.749	5.475	5.222	4.990	4.775
18	7.702	7.250	6.840	6.467	6.128	5.818	5.534	5.273	5.033	4.812
19	7.839	7.366	6.938	6.550	6.198	5.877	5.584	5.316	5.070	4.843
20	7.963	7.469	7.025	6.623	6.259	5.929	5.628	5.353	5.101	4.870

FORMULAE

Annuity
Present value of an annuity of $1 per annum, receivable or payable for n years, commencing in one year, discounted at r% per annum:

$$PV = \frac{1}{r}\left[1 - \frac{1}{[1+r]^n}\right]$$

Perpetuity
Present value of $1 per annum, payable or receivable in perpetuity, commencing in one year, discounted at r% per

annum:

$$PV = \frac{1}{r}$$

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May 2005

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