Business Management Pillar

Strategic Level

P6 – Management Accounting – Business Strategy

23 May 2006 - 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 ALL the question requirements before attempting the question concerned (that is, all parts and/or sub-questions). The question requirements are contained in a dotted box.
Answer the ONE compulsory question in Section A on pages 2, 3 and 5. The question requirements are on page 5, which is detachable for ease of reference.
Answer TWO of the four questions in Section B on pages 7 to 11.
Maths Tables and Formulae are provided on pages 13 and 14. 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

TURN OVER

SECTION A – 50 MARKS

[the indicative time for answering this section is 90 minutes]

ANSWER THIS QUESTION

Question One

CCC is a specialist car manufacturer, based in Y, a country in Europe. Three ex-employees of a major car manufacturer founded CCC in 1992 as a private limited company. CCC has never required further finance to aid its expansion, and remains a private company owned by the three founders. The three, who are all engineers, decided to leave their former employer in order to establish a business producing hand-built high performance sports cars for wealthy customers. The major car manufacturers are not able to supply such vehicles, as their systems are all based on the assumption that they will produce each car model in sufficient numbers to benefit from significant economies of scale.

CCC has always been profitable, and has grown significantly in recent years. It is now the second largest specialist car manufacturer in Europe and employs 300 staff at its head office and factory near the capital city of Y.

The specialist car industry

The customers who buy specialist cars are very status-conscious, and want a car that is totally unique. They are prepared to pay a very high price for their new car, in comparison to 'top of the range' models from the major manufacturers, but require extremely high quality and service levels in return. At present there are fewer than twenty specialist car manufacturers in Europe, and only six of these (including CCC) produce sports cars. The others specialise in off-road vehicles, armour-plated cars or limousines. As the cars are produced to customer order, there has historically been little price competition between the various specialist sports car manufacturers.

CCC, in common with other specialist car manufacturers, has invested a significant sum in creating the design of its two car models. It also spends a large proportion of its annual budget on sales promotion and marketing. This includes placing expensive advertisements in up-market car magazines, and attending many car shows and exhibitions. CCC also has a reputation for paying higher than average salaries to its senior designers and production staff. As a result, staff turnover at CCC is virtually non-existent.

Customers, who are often loyal to a particular manufacturer, can specify modifications to the basic design, such as minor changes to the body shape of the car, or major changes to the engine performance and driving characteristics of the car. The directors of CCC have always assumed that their customers are not particularly price-conscious, as they are often wealthy individuals with high disposable incomes. For these customers, the alternative to buying a car from CCC might be to purchase a yacht or go on a round-the-world cruise.

CCC manufactures most of the components of its cars in-house. The main exceptions are electrical and control equipment, wheels and tyres. The only major bought-in component is the car's engine, which CCC buys from a major car manufacturer and then sends to SSS (a sub-contractor) for modification and performance upgrades. While the engine is relatively expensive, it is the work of SSS that represents the single most significant cost of producing each car. CCC has, on occasions, paid SSS the equivalent of 25% of the final sales price of a car.

The board meeting

At the most recent board meeting of CCC, the directors discussed the worsening financial position of the organisation. Having spoken to the Sales Manager they came to the conclusion that, with the economies of Y and neighbouring countries in recession, customers had recently become more aggressive in negotiating down the purchase price of their cars. This had put pressure on the profit margin of CCC for the first time in its history. The directors therefore felt it was necessary to commission an independent review of their industry.

The Finance Director provided the following summary of CCC's performance:

€million	*2005*	*2004*	*2003*	*2002*
Revenue	11·75	11·12	10·06	10·10
Pre-tax profit	0·88	1·43	1·55	2·01
Dividend paid	0·08	0·50	0·50	0·50

The directors were particularly alarmed that SSS, the engine modification sub-contractor, seemed to be making almost as much profit on one of the engines as CCC was on the whole car. The Purchasing Manager of CCC said that it was impossible to negotiate a lower price with SSS, as most of CCC's customers specified that their car must have its engine prepared by SSS. The Sales Manager agreed that one of the 'unique selling points' of CCC's cars was the work done by SSS. At present, SSS does not supply engine modification services to any of CCC's competitors, but there is no contractual obligation to prevent it from doing so. The Purchasing Manager reported that CCC has no long-term supply contract with SSS, and the owner-manager of SSS had declined the offer of such a contract, believing that to enter into such an agreement would not be in the best interests of himself and his seven staff.

SSS

The Purchasing Manager has obtained the following information relating to SSS.

Extracts from the financial statements of SSS Ltd:

	2005 *€000*
Revenue	2,455
Cost of sales	1,398
Other costs	867
Profit before tax	190
Profit after tax	133
Dividend paid	65

	At 31 Dec 2005 *€000*
Non-current assets	894
Inventories	232
Receivables	146
Cash	32
Payables	244
Equity share capital	100
Retained earnings	960

Question one and the requirement continue on page 5 which is detachable for ease of reference

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Information obtained from the Motor Trade Association

Automotive component and service suppliers:

Average P/E ratio (for those suppliers with quoted share prices)	7·5
Average annual growth rate in reported post tax profits (1995-2005)	2·5
Average pre-tax profit margin	4·3%
Average pre-tax return on capital employed	11·2%
Average receivables days	65
Average payables days	28
Average revenue per employee	€128,500

Required

(a) Using Porter's "five forces" model as a framework, evaluate the competitive environment in which CCC operates.

(15 marks)

(b) Evaluate the financial position and performance of SSS, as at 31 December 2005.

Note: There are up to 12 marks available for calculations in this part of the question.

(25 marks)

(c) Advise the directors of CCC how the organisation might overcome the bargaining power of SSS.

(10 marks)

(Total for question one = 50 marks)

(Total for Section A = 50 marks)

End of Section A

Section B starts on page 7

TURN OVER

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SECTION B – 50 MARKS

[the indicative time for answering this section is 90 minutes]

ANSWER *TWO* QUESTIONS FROM FOUR

Question Two

2B is a medium-sized retailer of sports equipment and leisure clothing. 2B was established in 1987, and currently operates from three retail shops in town centre locations.

The management team of 2B is very careful about how it recruits staff. In addition to the specific skills required to do the job, any applicant must also have a 'passion' for sport. This has resulted in 2B gaining a reputation for excellent customer service and enthusiastic staff. A large proportion of staff time is also devoted to training, both on the product range and customer service techniques. According to a recent survey conducted by the store managers, the customers believe that 2B employees are 'helpful and knowledgeable'. The customers also praised the 2B shops for being 'well designed' and said that it was 'very easy' to find what they were looking for.

Another feature of 2B that is appreciated by the customers is the range of goods stocked. By developing close relationships with the major manufacturers of sports goods and clothing, 2B is able to stock a far wider range of items than its rivals. Control of this stock was made easier, last year, by the development of a sophisticated computerised stock control system. Using the system, any member of staff can locate any item of stock in any of the shops or the warehouse. If the required item is not 'in stock' at 2B, it is also possible to automatically check the availability of stock with the manufacturer.

At a recent management meeting, one of the store managers suggested that 2B consider developing its very basic website into one capable of e-retailing. At present, the website only gives the location of stores and some very basic details of the range of stock carried. Although the development of the website would be expensive, the managers have decided to give the suggestion serious consideration.

Required:

(a) Using the value chain model, explain those activities that add value in the 2B organisation, BEFORE the e-retail investment.

(10 marks)

(b) Identify those activities in the value chain of 2B that may be affected by the e-retail investment, explaining whether the value added by each of them may increase or decrease as a result of the e-retail investment.

(15 marks)

(Total for Question Two = 25 marks)

TURN OVER

Question Three

3C is a medium-sized pharmaceutical company. It is based in Asia, but distributes and sells its products world-wide.

In common with other pharmaceutical companies, 3C has a large number of products in its portfolio, though most of these are still being developed. The success rate of new drugs is very low, as most fail to complete clinical trials or are believed to be uneconomic to launch. However, the rewards to be gained from a successful new drug are so great that it is only necessary to have a few successful drugs on the market to be very profitable.

At present 3C has 240 drugs at various stages of development; being tested or undergoing clinical trials prior to a decision being made whether to launch the drug. 3C has only three products that are actually 'on the market':

- Epsilon is a drug used in the treatment of heart disease. It has been available for eight months and has achieved significant success. Sales of this drug are not expected to increase from their current level.
- Alpha is a painkiller. It was launched more than ten years ago, and has become one of the leading drugs in its class. In a few months the patent on this drug will expire, and other manufacturers will be allowed to produce generic copies of it. Alpha is expected to survive a further twelve months after it loses its patent, and will then be withdrawn.
- Beta is used in the hospital treatment of serious infections. It is a very specialised drug, and cannot be obtained from a doctor or pharmacist for use outside the hospital environment. It was launched only three months ago, and has yet to generate a significant sales volume.

The directors of 3C meet every month to review the product portfolio and to discuss possible investment opportunities. At their next meeting, they are to be asked to consider three investments. Due to a limited investment budget, the three investments are mutually exclusive (that is, they will only be able to invest in ONE of the options). The options are as follows:

- The directors can invest in a new version of Alpha, Alpha2, which offers improved performance. This will allow 3C to apply for a new patent for Alpha2, and maintain the level of sales achieved by Alpha for an additional five years. Alpha2 has successfully completed all its clinical trials, and can be launched immediately.
- The directors can invest in a major marketing campaign, to promote the use of Beta to specialist hospital staff. While this investment should lead to a significant growth in the sales of Beta, 3C is aware that one of its competitors is actively promoting a rival product with similar performance to that of Beta.
- The directors can invest in the final stage of clinical trials for Gamma. This is a 'breakthrough' drug, as it has no near rivals on the market. Gamma is used in the treatment of HIV, and offers significantly better success rates than any treatment currently available. The team of 3C specialists managing the development of Gamma is confident it can successfully complete clinical trials within six months. The team also believes that Gamma should be sold at the lowest price possible, to maximise the benefits of Gamma to society. However, the marketing department of 3C believes that it would be possible to earn very large profits from Gamma, due to its success rate and breakthrough status.

The requirement for this question is on the opposite page

Required:

(a) Briefly explain how the product life cycle model can be used to analyse the current product portfolio of 3C (that is, BEFORE the planned investment).

(8 marks)

(b) Evaluate the potential impact of each of the three investment options (Alpha2, Beta and Gamma) on the product portfolio of 3C, referring to your answer to part *(a)* above.

(9 marks)

(c) Discuss the social responsibility implications of each of the three investment options, for the directors of 3C.

(8 marks)

(Total for Question Three = 25 marks)

Section B continues on the next page

Question Four

4D is a large teaching hospital. While it offers a full range of hospital services to its local community, it also has a large staff of professors and lecturers who teach and train all kinds of medical student. 4D has a very good reputation for clinical excellence.

One of the areas in which 4D is very highly regarded is the training of surgeons. Three of the nine operating theatres in the hospital can be observed from a gallery, though only a limited number of students can watch any operation due to space constraints. This allows the students to watch an experienced surgeon carry out a procedure and then ask questions of their lecturer or the surgeon. Later in their training, students can use the same facilities to carry out operations while being observed by experienced staff and fellow students.

The IT department of 4D has just developed a new Information System for use in operating theatres. This system (OTIS – the Operating Theatre Information System) uses web technology to allow students anywhere in the world to videoconference with a lecturer during an operation. The students can observe the operation and the surgical team, and discuss the procedure with the surgeon and their lecturer. The system also works 'in reverse' so a surgeon at 4D can watch a student perform an operation elsewhere in the world, and provide guidance and support. The OTIS system is currently being tested, prior to introduction.

Required:

(a)

(i) Distinguish between Business Process Re-engineering (BPR) and Process Innovation (PI), and explain the role of information technology in each of these techniques.

(6 marks)

(ii) Discuss whether, in your opinion, the Operating Theatre Information System (OTIS) implementation is an example of BPR or PI.

(4 marks)

(b) Evaluate THREE benefits to 4D and TWO benefits to society, of the Operating Theatre Information System (OTIS)

(15 marks)

(Total for Question Four = 25 marks)

Question Five

5E is a management consultancy practice. It is a limited liability partnership with eight equal partners. Over the past ten years, 5E has invested heavily in the development of knowledge management. It now has a very large knowledgebase, with over half a million documents that have been produced by 5E staff. These range from internal memos, emails and research reports to major client project reports and articles that have been published in professional journals. The knowledgebase is stored on, and accessed through, 5E's Intranet. The Intranet is currently managed by X, a facilities management company which owns all the necessary hardware and software. PCs and laptops are all owned by 5E and maintained by X.

5E also has a website containing contact details for all of 5E's offices, and detailed descriptions of the products and services offered to clients. It also has mini case studies of successful 5E consultancy projects. These case studies have each been approved by the relevant client, as some of the content could have been perceived as commercially sensitive. The website is hosted by an Internet Service Provider (ISP). The same ISP also handles all incoming and outgoing email traffic on behalf of 5E.

Ms Y, the Chief Knowledge Officer (CKO) of 5E, has proposed a major upgrade to the Intranet. This would involve a significant investment, and the major aspects of the planned upgrade are as follows:

- To bring web hosting and the management of the Intranet in-house.
- To redesign the website so it gives clients of 5E password-protected access to the knowledgebase.

Required

(a) Recommend the information technology hardware and software that would be required by 5E in order to complete the Intranet upgrade project.

(10 marks)

(b) Using Mendelow's stakeholder mapping model, identify FIVE major stakeholders of the Intranet project. Explain the classification you have given, within the model, to each stakeholder.

(15 marks)

(Total for Question Five = 25 marks)

(Total for Section B = 50 marks)

End of Question Paper

Maths Tables and Formulae follow on pages 13 and 14

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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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Business Management Pillar

Strategic Level Paper

P6 – Management Accounting – Business Strategy

May 2006

Tuesday Morning Session