## CIMA

Business Management Pillar

# P6 - Management Accounting - Business Strategy 

## 22 May 2007 - Tuesday Morning Session

## Instructions to candidates



# SECTION A - 50 MARKS <br> [the indicative time for answering this section is 90 minutes] <br> ANSWER THIS QUESTION 

## Question One

## Introduction

AFR is a large retailer of furniture, based in an Asian country. It has three strategic business units (SBUs) which specialise in office, bedroom and lounge furniture. Each SBU is responsible for the design, procurement and retailing of its own range of furniture. AFR sells all its product ranges through a chain of large 'furniture superstores' throughout its own country. Each store sells all three furniture ranges.
AFR has been in existence for over twenty years, and has always been profitable. Recently, the organisation's profitability has been slightly higher than average for the furniture retail sector.

All the furniture that AFR sells is designed 'in house'. Design staff from each of the three SBUs work in a centralised research and development (R\&D) department, where all designs are developed. Production of the designs is outsourced to a number of small local manufacturers. This ensures that AFR can keep close control of product features, style and quality, while negotiating down the unit cost of production.

## Segmental analysis

The following figures are extracts from the report and accounts of AFR for 2006. AFR reports its performance in the local currency, the dollar.

|  |  | $\$$ million |
| :--- | :--- | ---: |
| Sales revenue | Office furniture | 4.23 |
|  | Bedroom furniture | 3.20 |
|  | Lounge furniture | 6.04 |
|  | TOTAL | 13.47 |
|  |  |  |
| Contribution |  | $\$$ million |
|  |  | 0.81 |
|  | Beffice furniture | 0.44 |
|  | Lounge furniture | 0.75 |
|  | TOTAL | 2.00 |

## Market conditions

The market for office furniture is estimated to be growing at a rate of about $15 \%$ each year. The market leader is DS with a reported sales revenue from this sector of $\$ 6.35$ million. DS sells a much narrower range of 'basic' office furniture than AFR, through a chain of specialised office furniture stores. Most of its products are mass produced in large factories elsewhere in Asia, and it is therefore able to sell at much lower prices than AFR.

The market for bedroom furniture is considered to be declining by about $5 \%$ each year. AFR is market leader in this segment, ahead of NKO (with sales revenue of $\$ 2.85$ million) and MK
( $\$ 2 \cdot 14$ million). AFR has a good reputation for the style and quality of its bedroom furniture, and customers report very high satisfaction levels.
The market for lounge furniture, such as sofas and easy chairs, is growing at a rate of about $2 \%$ each year. AFR is a relatively small player in this market which is dominated by MK with its sales revenue of $\$ 14.25$ million. The second placed competitor is TSC ( $\$ 11.96$ million) , closely followed by NKO ( $\$ 8.94$ million). Despite having tried to increase its market share in this segment, AFR has had little success. Much of AFR's lounge furniture is made to order, with customers allowed to choose from a wide range of styles and fabrics.

The following information has been provided by the Government bureau of economic statistics:

|  |  | $\$$ million |
| :--- | :--- | ---: |
| Market volumes | Office furniture | 23.60 |
| $(2006)$ | Bedroom furniture | 12.80 |
|  | Lounge furniture | 70.00 |

## Dining furniture

The research and development (R\&D) manager of AFR has noticed that the market for dining furniture, such as dining tables and formal dining chairs, is growing at a rate of about $10 \%$ a year. Furthermore, he is aware that neither DS nor MK has any dining furniture products. This market segment is served by many small retailers, each of whom sells a similar range. Most of the dining furniture currently on sale originates from a few large manufacturers.

The R\&D manager has proposed to the Board of AFR that the organisation develop its first ever range of dining furniture. The R\&D manager has provided the following estimates of project cost and revenue.
\$
Depreciation (per year)
24,000
Other fixed costs (per year)
80,000
Variable cost (per unit*)
560
Average sales price (per unit*) 800

* A unit is one table and six chairs.

The R\&D manager has calculated that, to breakeven, AFR must sell just over 400 units per year. He believes that such a level of sales is almost certain due to the stylish designs he has been working on.

The marketing manager is not sure. She feels that sales need to be closer to 500 units each year if AFR are to make a profit. The marketing manager also believes that demand is unlikely to exceed 500 units for such unusual designs. She is also concerned that the new dining furniture may be overpriced at $\$ 800$ per unit.

The managing director asked the R\&D manager how much investment in new capital equipment would be required, and the R\&D manager said that the investment cost of $\$ 120,000$ was already taken into account in the depreciation figure.

AFR evaluates projects over a five year period.

## The requirement for Question One is on page 5, which is detachable for ease of reference

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## Required

(a) Evaluate the existing product portfolio of AFR.

Note: There are up to 7 marks available for calculations in this requirement.
(15 marks)
(b) Recommend an appropriate strategy for each existing product range.
(9 marks)
(c) Advise the Board whether to invest in the new range of dining furniture. You should assume a cost of capital of $10 \%$ for this project, a project life of five years and no taxation.

Note: There are 6 marks available for calculations in this requirement
(14 marks)
(d) Recommend appropriate control measures, assuming none are currently in place, for
(i) the three existing product ranges;
(6 marks)
(ii) the project to develop the new range of dining furniture should it go ahead. (The project, for the purpose of this question, may be assumed to be the design of the new product range and production of prototype products only.)
(6 marks)
(Total for Question One = 50 marks)
(Total for Section A = 50 marks)

## End of Section A

Section B starts on page 7
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## SECTION B - 50 MARKS <br> [the indicative time for answering this section is 90 minutes] ANSWER TWO QUESTIONS FROM FOUR

## Question Two

$B$ is a media company, publishing lifestyle magazines for the consumer market. These lifestyle magazines contain articles and advertisements about fashion, health and beauty products, homes, furniture, and hobbies and are bought by people aspiring to a high standard of living.

Increasingly, consumers are turning to other media for the information and entertainment traditionally provided by this type of magazine.
Traditionally, $60 \%$ of B's revenue has been derived from selling advertising, the balance being provided by the cover price of each magazine. Over the last four years both the revenue and profits have declined as there has been a steady reduction in the sale of both advertising space and the number of magazines sold.

The industry is very dependent upon the level of discretionary disposable income. If this income is at a low level, fewer luxury goods are advertised. However, people still buy the magazines to read about these goods.
The company has tried to expand abroad but has failed, expensively, to achieve this. Similarly, attempts to enter other segments of the home market, particularly teenage magazines, have failed. Both of these failures have come as a surprise to the Board of Directors who thought that they understood the respective markets well enough to make the appropriate decisions.
New technology, in the form of digital media, has also affected the magazines industry. These changes have been felt in both production methods, such as broadband distribution of proof copies, and the choice of media, such as the Internet, available to consumers. To a large extent, the speed of these developments was a surprise to the directors of B.

## Required:

As management accountant, you have been seconded to work with the organisation's forecasting and planning function, to improve its long-range planning.
(a) Evaluate the benefits to $B$ of implementing a process of systematic environmental analysis.
(b) Describe the essential stages that should be included in a scenario planning process that could be introduced by B.

## Question Three

C is a major pharmaceutical manufacturing company producing and supplying a variety of prescription drugs in its home market. C currently uses its own fleet of vehicles to deliver to the wholesalers. There are six competitors who supply drugs which can be used to treat the same diseases as those produced by C.

Up until three years ago, the supply chain for the industry consisted of the manufacturers, and a group of ten wholesalers which covered the whole country and which supplied approximately 4,000 independent pharmacies. These independent pharmacies are all small companies which source their drugs from the wholesalers.

Traditionally, patients would see a doctor who would write a prescription for the correct dose of the required drug which the patients had to take to the pharmacy to get their supply. This was the only way they could obtain their medication. Because of a government subsidy, regardless of the medication prescribed, all prescriptions are charged at a fixed rate.
Three years ago, the legislation changed and for the first time supermarkets were allowed to employ a qualified pharmacist and to supply prescription drugs. Because of their size and buying power, the supermarkets are now refusing to deal with the wholesalers and are insisting on being supplied directly by the pharmaceutical manufacturers.
These changes have not been well received by the independent pharmacies. There has been a significant volume of comment in the press about pressure groups which see this as another encroachment by 'big business' on the small independent traders. Some government ministers have also expressed concern about the increasing market power of the supermarkets.
C is considering changing its distribution network so that it no longer supplies the wholesalers but will sell directly to all the independent pharmacies and will share the wholesalers' margin with them.

Although the transport manager has said that he believes the arrangements can be dealt with in-house, some of the Board of Directors feel that it might be better to outsource all the transport function.

The Board of Directors recognises that there would need to be significant changes in the way the company operates were either, or both, proposals to be implemented. These changes would also have a significant effect on the stakeholders of the business.

## Required:

(a) Discuss the advantages and disadvantages, to C , of the proposal to supply directly to the pharmacies.
(10 marks)
(b) Discuss the advantages and disadvantages, to C, of the proposal to outsource the transport function should the proposal to directly supply pharmacies be adopted.
(8 marks)
(c) Advise the project team how $C$ might best communicate the decision, to directly supply independent pharmacies, to each of its principal stakeholders.
(7 marks)
(Total for Question Three $=25$ marks)

## Question Four

D is a management consultancy partnership providing complex computer modelling services to utility companies. Three partners started the business ten years ago but rapid growth in the past four years has seen it increase to fifteen partners. Each partner has a team working exclusively for, and reporting directly to that partner. Competition between the teams is fierce and, sometimes, heated. The loyalty of each team to its respective partner is very strong.

Members of each team are rewarded with an annual team bonus based on the amount of new business they bring in each year. However, recently it has been discovered that teams have been competing with each other for the same potential new client.

Partners recruit all consultants as trainees, usually after they have obtained a doctorate in pure mathematics or economics. After a six months probationary period they are either confirmed in post or asked to leave. The rewards for those that stay are high with at least $60 \%$ of income derived from the team bonus. Typically a basic salary of $\$ 40,000$ would be boosted to $\$ 100,000$ if the team has worked aggressively and found new clients.

The service that the partnership provides is highly specialised and at the forefront of available technology. Each team will write computer simulations to address its clients' problems. These models are not made available outside the company and, on some occasions, have not even been shared with other teams in the consultancy.

At a recent partners' meeting, it was agreed that the inter-team rivalry was not working in the partnership's best interest, since teams were competing in such a way as to damage the firm's reputation, profitability and its prospects for growth. Recognising that the current performance measurement system encouraged this behaviour, the partners agreed that an appropriate performance measurement system should be introduced which was less one-dimensional. The partners believed this would encourage better practice in terms of knowledge sharing and a coordinated approach to their existing clients and potential clients. They have recognised that the introduction of a multi-dimensional performance measurement system will involve a significant training programme for their teams to redirect their current focus away from only finding new business.

## Required:

As a first stage in this process, you have been appointed as management accountant and practice manager.
(a) Advise the partners of the functions that an effective performance measurement system will perform for $D$.

Note: You are not required to describe, in detail, any particular system.
(10 marks)
(b) Recommend the process that should be used in developing the performance measurement system to be used within D.
(15 marks) '
(Total for Question Four = 25 marks)

## Question Five

E is a developing country in a group of islands where each island is a separate country. A number of the islands formed a trade bloc five years ago and cooperate economically and in their terms of trade.

Those countries that are in the trade bloc impose no tariffs on imports and exports between member countries but impose a common rate of import duty on any goods or services brought into the group. The trade bloc jointly advertises the attractiveness of the area for inward investment, exports and tourism, and this has been reasonably successful recently. At present, each island has a different currency but full monetary union has been proposed for the future.
E does not belong to the trade bloc at this point in time and is the least developed of the islands in the group although, geographically, it is one of the largest.
There is a fairly large volume of trade between the islands and the majority of E's exports of agricultural products and light engineering products go to other countries in the group of islands. Since the other islands are more industrialised than E , they are not self-sufficient for foodstuffs.
The school system of E produces well-educated children, many of whom go to a nearby industrialised country, F , to take degrees. F is not part of the trade bloc. Only $10 \%$ of those students return to E and usually work in their parents' business or other small firms. The average age of the population of $E$ is some ten years higher than that of the islands in the trade bloc.
Although E is an attractive location, there is a limited tourism industry in E and there is very little in the way of service industry, although the government has recently received a grant from the World Bank to improve the telecommunications infrastructure of the island.

## Required

(a) Identify those internal and external stakeholders who would be interested in E's decision to join the trade bloc and discuss the nature of their interest.
(12 marks)
(b) Discuss the advantages and disadvantages that could be experienced by the stakeholders based in E if the country were to enter the trade bloc.
(13 marks)
(Total for Question Five = 25 marks)
(Total for Section B = 50 marks)

## End of Question Paper

## 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 <br> $(n)$ | Interest rates $(r)$ |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: |
|  | $1 \%$ |  | $2 \%$ | $3 \%$ | $4 \%$ | $5 \%$ | $6 \%$ | $7 \%$ | $8 \%$ | $9 \%$ |  |
| 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 <br> $(n)$ | Interest rates $(r)$ |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: |
|  | $11 \%$ | $12 \%$ | $13 \%$ | $14 \%$ | $15 \%$ | $16 \%$ | $17 \%$ | $18 \%$ | $19 \%$ | $20 \%$ |  |
| 2 | 0.901 | 0.893 | 0.885 | 0.877 | 0.870 | 0.862 | 0.855 | 0.847 | 0.840 | 0.833 |  |
| 3 | 0.812 | 0.797 | 0.783 | 0.769 | 0.756 | 0.743 | 0.731 | 0.718 | 0.706 | 0.694 |  |
| 4 | 0.731 | 0.712 | 0.693 | 0.675 | 0.658 | 0.641 | 0.624 | 0.609 | 0.593 | 0.579 |  |
| 5 | 0.659 | 0.636 | 0.613 | 0.592 | 0.572 | 0.552 | 0.534 | 0.516 | 0.499 | 0.482 |  |
| 6 | 0.593 | 0.567 | 0.543 | 0.519 | 0.497 | 0.476 | 0.456 | 0.437 | 0.419 | 0.402 |  |
| 7 | 0.535 | 0.507 | 0.480 | 0.456 | 0.432 | 0.410 | 0.390 | 0.370 | 0.352 | 0.335 |  |
| 8 | 0.482 | 0.452 | 0.425 | 0.400 | 0.376 | 0.354 | 0.333 | 0.314 | 0.296 | 0.279 |  |
| 9 | 0.434 | 0.404 | 0.376 | 0.351 | 0.327 | 0.305 | 0.285 | 0.266 | 0.249 | 0.233 |  |
| 10 | 0.391 | 0.361 | 0.333 | 0.308 | 0.284 | 0.263 | 0.243 | 0.225 | 0.209 | 0.194 |  |
| 11 | 0.352 | 0.322 | 0.295 | 0.270 | 0.247 | 0.227 | 0.208 | 0.191 | 0.176 | 0.162 |  |
| 12 | 0.317 | 0.287 | 0.261 | 0.237 | 0.215 | 0.195 | 0.178 | 0.162 | 0.148 | 0.135 |  |
| 13 | 0.286 | 0.257 | 0.231 | 0.208 | 0.187 | 0.168 | 0.152 | 0.137 | 0.124 | 0.112 |  |
| 14 | 0.258 | 0.229 | 0.204 | 0.182 | 0.163 | 0.145 | 0.130 | 0.116 | 0.104 | 0.093 |  |
| 15 | 0.232 | 0.205 | 0.181 | 0.160 | 0.141 | 0.125 | 0.111 | 0.099 | 0.088 | 0.078 |  |
| 16 | 0.209 | 0.183 | 0.160 | 0.140 | 0.123 | 0.108 | 0.095 | 0.084 | 0.079 | 0.065 |  |
| 17 | 0.188 | 0.163 | 0.141 | 0.123 | 0.107 | 0.093 | 0.081 | 0.071 | 0.062 | 0.054 |  |
| 18 | 0.170 | 0.146 | 0.125 | 0.108 | 0.093 | 0.080 | 0.069 | 0.060 | 0.052 | 0.045 |  |
| 19 | 0.153 | 0.130 | 0.111 | 0.095 | 0.081 | 0.069 | 0.059 | 0.051 | 0.044 | 0.038 |  |
| 20 | 0.138 | 0.116 | 0.098 | 0.083 | 0.070 | 0.060 | 0.051 | 0.043 | 0.037 | 0.031 |  |

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 <br> $(n)$ | Interestrates $(r)$ |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: |
|  | $1 \%$ | $2 \%$ | $3 \%$ | $4 \%$ | $5 \%$ | $6 \%$ | $7 \%$ | $8 \%$ | $9 \%$ | $10 \%$ |  |
| 2 | 0.990 | 0.980 | 0.971 | 0.962 | 0.952 | 0.943 | 0.935 | 0.926 | 0.917 | 0.909 |  |
| 3 | 1.970 | 1.942 | 1.913 | 1.886 | 1.859 | 1.833 | 1.808 | 1.783 | 1.759 | 1.736 |  |
| 4 | 2.941 | 2.884 | 2.829 | 2.775 | 2.723 | 2.673 | 2.624 | 2.577 | 2.531 | 2.487 |  |
| 5 | 3.902 | 3.808 | 3.717 | 3.630 | 3.546 | 3.465 | 3.387 | 3.312 | 3.240 | 3.170 |  |
| 6 | 4.853 | 4.713 | 4.580 | 4.452 | 4.329 | 4.212 | 4.100 | 3.993 | 3.890 | 3.791 |  |
| 7 | 5.795 | 5.601 | 5.417 | 5.242 | 5.076 | 4.917 | 4.767 | 4.623 | 4.486 | 4.355 |  |
| 8 | 6.728 | 6.472 | 6.230 | 6.002 | 5.786 | 5.582 | 5.389 | 5.206 | 5.033 | 4.868 |  |
| 9 | 7.652 | 7.325 | 7.020 | 6.733 | 6.463 | 6.210 | 5.971 | 5.747 | 5.535 | 5.335 |  |
| 10 | 8.566 | 8.162 | 7.786 | 7.435 | 7.108 | 6.802 | 6.515 | 6.247 | 5.995 | 5.759 |  |
| 11 | 9.471 | 8.983 | 8.530 | 8.111 | 7.722 | 7.360 | 7.024 | 6.710 | 6.418 | 6.145 |  |
| 12 | 10.368 | 9.787 | 9.253 | 8.760 | 8.306 | 7.887 | 7.499 | 7.139 | 6.805 | 6.495 |  |
| 13 | 11.255 | 10.575 | 9.954 | 9.385 | 8.863 | 8.384 | 7.943 | 7.536 | 7.161 | 6.814 |  |
| 14 | 12.134 | 11.348 | 10.635 | 9.986 | 9.394 | 8.853 | 8.358 | 7.904 | 7.487 | 7.103 |  |
| 15 | 13.004 | 12.106 | 11.296 | 10.563 | 9.899 | 9.295 | 8.745 | 8.244 | 7.786 | 7.367 |  |
| 16 | 13.865 | 12.849 | 11.938 | 11.118 | 10.380 | 9.712 | 9.108 | 8.559 | 8.061 | 7.606 |  |
| 17 | 14.718 | 13.578 | 12.561 | 11.652 | 10.838 | 10.106 | 9.447 | 8.851 | 8.313 | 7.824 |  |
| 18 | 15.562 | 14.292 | 13.166 | 12.166 | 11.274 | 10.477 | 9.763 | 9.122 | 8.544 | 8.022 |  |
| 19 | 16.398 | 14.992 | 13.754 | 12.659 | 11.690 | 10.828 | 10.059 | 9.372 | 8.756 | 8.201 |  |
| 20 | 17.226 | 15.679 | 14.324 | 13.134 | 12.085 | 11.158 | 10.336 | 9.604 | 8.950 | 8.365 |  |


| Periods <br> (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 | 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:

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

## Perpetuity

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

$$
P V=\frac{1}{r}
$$

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## LIST OF VERBS USED IN THE QUESTION REQUIREMENTS

A list of the learning objectives and verbs that appear in the syllabus and in the question requirements for each question in this paper.

It is important that you answer the question according to the definition of the verb.

| LEARNING OBJECTIVE | VERBS USED | DEFINITION |
| :--- | :--- | :--- |
| $\mathbf{1}$ KNOWLEDGE |  |  |
| What you are expected to know. | Make a list of |  |
|  | Sist | Express, fully or clearly, the details of/facts of <br> Give the exact meaning of |
| $\mathbf{2}$ COMPREHENSION | Define |  |
| What you are expected to understand. |  | Communicate the key features |
|  | Describe | Highlight the differences between |
|  | Distinguish | Make clear or intelligible/State the meaning of |
|  | Explain | Recognise, establish or select after |
| consideration |  |  |

# Business Management Pillar 

## Strategic Level Paper

## P6 - Management Accounting Business Strategy

May 2007

Tuesday Morning Session

