

Cambridge Pre-U Syllabus

Cambridge
Pre-U

Cambridge International Level 3
Pre-U Certificate in
BUSINESS AND MANAGEMENT

For examination in 2010, 2011 and 2012



UNIVERSITY of CAMBRIDGE
International Examinations

Business and Management (9771)

**Cambridge International Level 3
Pre-U Certificate in Business and Management (Principal)**

For examination in 2010, 2011 and 2012

QAN 500/4023/6

Support

CIE provides comprehensive support for all its qualifications, including the Cambridge Pre-U. There are resources for teachers and candidates written by experts. CIE also endorses a range of materials from other publishers to give a choice of approach. More information on what is available for this particular syllabus can be found at www.cie.org.uk

Syllabus Updates

This syllabus is for teaching from 2008 and is valid for examination in 2010, 2011 and 2012.

If there are any changes to this syllabus CIE will write to Centres to inform them. This syllabus will also be published annually on the CIE website (www.cie.org.uk/cambridgepreu). The version of the syllabus on the website should always be considered as the definitive version.

Further copies of this, or any other Cambridge Pre-U syllabus, can be obtained by either downloading from our website www.cie.org.uk/cambridgepreu

or contacting:

Customer Services, University of Cambridge International Examinations,

1 Hills Road, Cambridge CB1 2EU

Telephone: +44 (0)1223 553554

Fax: +44 (0)1223 553558

E-mail: international@cie.org.uk

CIE retains the copyright on all its publications. CIE registered Centres are permitted to copy material from this booklet for their own internal use. However, CIE cannot give permission to Centres to photocopy any material that is acknowledged to a third party even for internal use within a Centre.

Copyright © University of Cambridge Local Examinations Syndicate 2008

Cambridge International Level 3 Pre-U Certificate

Business and Management**9771****Contents**

	Page
Introduction	4
Aims	6
Assessment Objectives	6
Principal Scheme of Assessment	7
Weighting Objectives – Principal	7
Description of Papers	8
Curriculum Content	9
Appendix 1: Paper 3 – Personal Investigation	26
Appendix 2: Performance Descriptors	32
Appendix 3: Additional Information	33

Introduction

The Cambridge Pre-U Diploma aims to equip candidates with the skills required to make a success of their subsequent studies at university, involving not only a solid grounding in each specialist subject at an appropriate level, but also the ability to undertake independent and self-directed learning and to think laterally, critically and creatively. The Cambridge Pre-U curriculum is underpinned by a core set of educational principles:

- A programme of study that supports the development of well-informed, open and independent-minded individuals capable of applying their skills to meet the demands of the world as they will find it and over which they may have influence.
- A curriculum that retains the integrity of subject specialisms and which can be efficiently, effectively and reliably assessed, graded and reported to meet the needs of universities.
- A curriculum that is designed to recognise a wide range of individual talents, interests and abilities and which provides the depth and rigour required for a university degree course.
- A curriculum that encourages the acquisition of specific skills and abilities, in particular the skills of problem solving, creativity, critical thinking, team working and effective communication.
- The encouragement of 'deep understanding' in learning – where that deep understanding is likely to involve higher order cognitive activities.
- The development of a perspective that equips young people to understand a range of different cultures and ideas and to respond successfully to the opportunity for international mobility.

All Cambridge Pre-U syllabuses are linear. A candidate taking a Principal Subject must take all the external examination components together at the end of the course in one examination session.

Business activity affects everyone. Candidates will already be consumers; most will go on to become employees and managers, others will become entrepreneurs or investors. Business and Management can provide an appreciation of the value of business activity, plus a practical understanding of how businesses operate and why business decision-making is so important. A good Business and Management course will achieve this while creating the sparks to engage candidates of all abilities, stretching the most able and encouraging a love of the subject among those candidates who will proceed with Business and Management at university.

The specification provides a sound foundation for the study of Business and Management courses at Higher Education level. The course is also designed to be a useful aid to those seeking employment immediately. The specification was written with input from teachers, universities and professional bodies such as the Economics and Business Education Association.

This course aims to blend academic rigour and the development of practical skills. Knowledge relevant to businesses in the twenty-first century is embodied in the curriculum content. Thus, for example, there are topics such as corporate social responsibility, Porter's Five Forces model, China and India as emerging economic powers, waste management and off-shoring, as well as the more classic principles which will continue to be relevant in business. The course encourages development of the skills of knowledge, application, analysis and evaluation. Furthermore, it also focuses explicitly on developing communication skills which are valued highly by both employers and universities. This is reflected in the assessment. The course also strongly encourages candidates to become competent and confident in the calculation and interpretation of business data. Again this is reflected in the assessment.

The assessment consists of (a) two examination papers and (b) a report based on a business investigation. The examination papers require the candidate to write extended answers in response to questions based on case studies (which are not seen before the examination). One examination paper additionally requires an essay response to a stimulus question that is not case study related. The business investigation enables each candidate to explore and report on a business problem that the teacher deems suitable.

This course combines the familiar with the bold and exciting. Teachers will be familiar with most of the content, but candidates will be able to learn about concepts beyond the set of business topics traditionally taught at school. The course does not shy away from tackling problems that candidates may find difficult to solve (e.g. those that require calculations or concepts that are unfamiliar or at first appear abstract). The course will be stimulating to teach and to follow; it will be rigorously and fairly assessed; and it will prepare candidates well for university.

The syllabus builds on the knowledge, understanding and skills typically gained by candidates taking Level 2 qualifications. It is recommended that candidates have attained communication and literacy skills at a level equivalent to IGCSE/GCSE Grade C in English and mathematics skills at a level equivalent to IGCSE/GCSE Grade C in Mathematics. No prior knowledge of business or management is required.

Aims

- To enable candidates to acquire a thorough understanding of the subject matter as a foundation for higher education.
- To enable candidates to appreciate and understand how concepts and theories can be used in business and management situations.
- To expose candidates to current issues in business and management and to encourage them to explore the relevance of theory to these issues.
- To develop in candidates a sense of the holistic nature of business and management issues and to encourage them not to view functional areas in isolation.
- To develop in candidates the skills of critical analysis and synthesis and effective communication which, taken together, lead to better decision-making.

Assessment Objectives

Candidates will be expected to:

AO1: Knowledge	demonstrate knowledge and understanding of the specified content
AO2: Application	apply knowledge in the context of a particular problem or scenario
AO3: Analysis	analyse business problems and issues
AO4: Evaluation	evaluate business arguments and evidence to make reasoned judgements
AO5: Communication	communicate clearly in discussing business problems and solutions

Principal Scheme of Assessment

For the Principal Pre-U qualification in Business and Management, candidates take the three examination components in the same session.

Component	Component Title	Duration	Weighting (%)	Type of Assessment
Paper 1	Business Concepts	2½ hours	35	Written paper, externally set and marked
Paper 2	Strategic Decisions	3 hours	40	Written paper, externally set and marked
Paper 3	Personal Investigation	–	25	3000–3500 word report, internally set and externally marked

Weighting of Objectives – Principal

Paper	Knowledge	Application	Analysis	Evaluation	Communication	Total
Paper 1	11	8	8	8	0	35
Paper 2	8	11	11	10	0	40
Paper 3	1	1	6	7	10	25
Total	20	20	25	25	10	100

Description of Papers

Paper 1 (Business Concepts):

Section 1 has 20 multiple-choice questions covering the entire course. Candidates answer all questions. Guide time is 25 minutes.

Section 2 has case study questions based on a previously unseen case study. Candidates answer all questions. Guide time is 1 hour 20 minutes including reading time.

Section 3 involves choosing an essay question that is not case study related. Guide time is 45 minutes.

Paper 2 (Strategic Decisions):

All questions are based on a previously unseen case study.

Section 1 is non-synoptic and has one question with multiple parts. Guide time is 45 minutes including reading time.

Section 2 requires three synoptic long-answer responses. Guide time is 2 hours 15 minutes including reading time.

Paper 3 (Personal Investigation):

The candidate will investigate a well-defined specific problem, issue or question that exists at a real business. The investigation will focus on a small/medium-sized business such as a local firm or private limited company (not a public limited company). The investigation will be centred on problem solving and will involve the collection and use of primary and secondary data.

The Personal Investigation will be assessed by a report. The report will be between 3000 and 3500 words in length, produced in font size 12 and word counted, and will be fully ICT based.

Further details about the Personal Investigation can be found in Appendix 1.

Curriculum Content

1. The Business Environment

This section of the syllabus covers material that is essential to understand some key factors that influence business behaviour outside the functional areas. The constraints and opportunities of the business environment should be illustrated through reference to economic factors and the core structures of many businesses.

1.1 Enterprise

Entrepreneurship and Business Start-ups

- Risk v. reward.
- Role of entrepreneurs.
- Practicalities of start-ups and government support
 - Entrepreneurs as innovators, leaders, wealth creators
 - Government initiatives to promote new businesses
 - The realities of setting up a business, from business plan onwards.

1.2 Business and the economy

The Market and Competition

- The impact of competition, price and non-price competition, anti-competitive behaviour and legal restrictions
 - The need for innovation, possibly lowering prices, efficiency, customer service, improved quality
 - Predatory pricing, cartels, collusion, market sharing, price fixing
 - Regulation by the Office of Fair Trading and the Competition Commission.
- Supply and demand, determinants of, market equilibrium, excess demand and supply
 - Definition of supply and demand
 - The supply and demand diagrams
 - Distinction between movements along and shift of the curves
 - The determinants of demand: price, disposable income, advertising, population changes, interest rates, tastes, price of substitutes and complements, availability of credit
 - The determinants of supply: number of firms, technological change, subsidies and taxation, other factors such as weather, management and business-specific issues
 - Equilibrium in a market, diagrammatic representation, illustrating excess demand and supply, reasons for, business response, the price mechanism and the potential return to equilibrium.

- Competition, globalisation and developing markets in economic regions (e.g. southern Africa or the European Union), the emergence of India and China as global economic powers, the growth of the EU as a single market
 - The increasing integration of the world market for goods and services and further integration of world capital markets, the increasing power of multinationals, increased price competition, globalisation and structural change within economies, the increased importance of international trade
 - The effects of globalisation on businesses, competition, increased economies of scale, location of the business, mergers and joint ventures, currency movements, pros and cons of globalisation
 - The Chinese and Indian economies, the EU as a single economy, the implication of their growth for the UK including enlargement of labour markets.

The Business Cycle

- Causes, phases and implications for businesses
 - The causes which could include external shocks such as oil price spikes, inappropriate government policies
 - Phases of the business cycle such as boom, recession, slump, recovery and long-run trend
 - Implications for businesses such as potential increased price sensitivity in a recession.

Taxation

- Types of taxation, direct and indirect and their impact on consumers and business
 - Types of taxes such as Value Added Tax (VAT), corporate or income tax, business rates, National Insurance (NI)
 - Distinction between direct such as income tax and indirect such as VAT
 - Impact of taxation on businesses may include potentially higher selling prices, increased costs and falling demand. Impact on consumers may mean falling disposable incomes, changing purchasing patterns.

Interest Rates

- Impact on businesses, the currency, investment decisions, consumers and demand, foundation knowledge of interest rate decisions
 - Impact of rising interest rates could include some consumers facing falling incomes, increased saving and reduced spending, trade payables will desire faster payment and trade receivables will want to delay payment, inventory may fall in line with the increased opportunity cost, the currency may appreciate
 - Basic understanding of the role of the Monetary Policy Committee of the Bank of England and its independence.

Exchange Rates

- Appreciation and depreciation and its impact on businesses, imports and exports
 - Factors influencing the exchange rate such as interest rate movements
 - Impact of appreciation on business such as increased difficulty of exporting and reduced costs of imported components, impact of depreciation.

Unemployment

- Types and impact on businesses
 - Types of unemployment such as structural and cyclical (demand deficient)
 - Impact on business such as reduced demand for goods and services, easier to recruit high calibre staff.

Inflation

- Measurement, causes and impact, deflation, CPI, cost push and demand pull
 - Basket of goods as a weighted index and the CPI
 - RPI
 - Inflation transmission through costs and/or demand
 - Impact of deflation on businesses and the general economy such as seen in Japan
 - Impact of inflation on businesses such as difficulty with planning, uncompetitiveness overseas, wage-price spiral.

1.3 ObjectivesGovernment Macro-Economic Objectives

- Low inflation, sustained trend growth and low unemployment
 - The government's 2.0% (1–3%) target for CPI inflation
 - Objective to maintain trend economic growth of 2.5%
 - The desire to keep unemployment low
 - Impact of these government objectives on policy, the business environment, business strategy.

Types of Objective

- Tactical, strategic and corporate
 - Broad time periods involved and the nature of these objectives.

Uses and Problems of Objectives

- How objectives can help or hinder businesses and what makes a good objective (SMART)
 - Goal setting, motivational, review tool
 - Problems may arise over suitable objectives and/or what is achievable, who sets the objectives and the consultation procedure.

1.4 Stakeholders

Stakeholders in a business

- Owners, customers, managers, shareholders, pressure groups, trade payables and employees
 - Who are the key stakeholders in a particular business
 - Which stakeholders have any real control over business actions.

Stakeholder Objectives

- The variety of objectives that stakeholders have and their differing priorities
 - Different stakeholders will have different priorities such as employees maximising wages and owners maximising profits, corporate social responsibility.

1.5 Classification of business

Legal Structure

- Sole trader, partnership, private limited company, public limited company
 - Knowledge of the key characteristics of the legal structures and the necessary documents they require.

Sector

- Public and private, differing objectives and ownership
 - Ownership such as individuals, franchises or government and objectives such as profit and/or service.

Size

- How is size measured and how can businesses expand, the reasons for and methods of growth and the benefits of small firms
 - Typical measures of size include turnover, profit, number of employees
 - Methods of expansion include organic growth, mergers and acquisitions/take-over
 - Reason for growth include economies of scale, market power, prevention of hostile bids, survival
 - Small firms are still important and survive because government policy has promoted their establishment and personal service is valued.

Economic Sectors

- Primary, secondary and tertiary, trends within the sectors, emergence of the service/knowledge economy
 - Sectors of the economy and typical businesses within sectors such as farming within the primary sector
 - Trends in the sectors such as the growth of the service sectors and the implications and reasons for this.

1.6 Business opportunities and constraints

Social

- Demographic changes, such as ageing population and falling birth rates, impact on businesses
 - Knowledge of changes in the size and structure of the population
 - Impact on businesses such as the growth of Saga to cater for an ageing population.

Legal

- Legislation and its impact on business, basic knowledge of key legislation facing businesses such as the Data Protection Act, Employment Equality (Age) Regulations and Disability Discrimination Act
 - Knowledge of purpose and impact on businesses of legislation such as potentially increasing costs in the short run but decreasing costs in the long run
 - Examples of legislation impacting upon functional areas such as the minimum wage and people management.

Technology

- Benefits and threats of technology, new technologies and their impact on business and customer behaviour
 - Technologies such as computerised inventory control (EPOS), computer aided manufacturing (CAM), computer aided design (CAD), robotics, automation
 - The emergence of e-commerce, price comparison sites.

Environmental

- External costs, environmental policy and audits, the growth of the 'green pound' and the response of business
 - Examples of external costs such as congestion and pollution
 - Business response to environmental concerns such as reduced packaging
 - The role of environmental audits and policies such as emissions reductions
 - The growth of consumer interest in 'green' goods and services such as organic products and the response of business to this demand.

Business Ethics

- Possible conflicts and resolution, ethical code, ethical investments, Fair Trade
 - The increasing role of ethics in customer behaviour, the impact on businesses of this shift, the Ethical Trading Initiative (ETI)

1.7 Planning

- Strategic planning, important decisions and the long-term effects
 - Communication of plans through mission statements and corporate plans.
- Contingency plans, preparing for unlikely or unwanted scenarios such as a severe recession or a global flu epidemic
 - Preparing for the unexpected, role, purpose and limitations of contingency plans.
- Porter's Five Forces model, business behaviour and success is affected by five key factors: buyer power, supplier power, entry threat, substitute threat and rivalry
 - Knowledge of Porter's model and its uses and limitations.

1.8 Corporate issues

- Corporate culture, the values, attitudes and beliefs associated with a business
 - Corporate culture influences strategies such as the decision-making process and management style
 - Corporate culture's importance in terms of its impact on motivation and consumer perception
 - Changing corporate culture takes time, commitment and consultation.
- Corporate governance, who has power in practice, the role of shareholders, institutional investors and managers
 - The Cadbury Codes of Best Practice, the Cadbury Committee, the control of boardrooms in theory and practice, key players such as institutional investors, various shareholders groups, company directors.

1.9 Equities

- The stock market, impact of share price movements on a business, determinants of share prices, private equity
 - Benefits and problems of being a listed company
 - Share price movements can influence areas such as bonuses and likelihood of being a take-over target
 - Share prices are affected by investor sentiment, company accounts, prospects and valuations
 - The growth of private equity leveraged buyouts and their impact on business behaviour.

The following sections of the syllabus cover the core functional areas of business decision making. A level of factual knowledge is built upon until a synoptic view can be appreciated. Candidates will be expected to use their knowledge base to analyse and evaluate issues within specific business situations. Due to the linear nature of assessment the order of study is at the teacher's discretion.

2. Marketing

2.1 Marketing and Objectives

- Definition of marketing, marketing objectives
 - What is meant by marketing, review suitable marketing objectives.
- Customer relationship management (CRM)
 - The implications for business and consumers of loyalty cards such as Sainsbury's Nectar, personalised marketing, consumer databases.
- Market and product orientation, examples of
 - Distinction between market and product orientation
 - Examples and suitability of both approaches.
- Market segmentation, reasons for and examples
 - Methods of market segmentation, reasons for, relative merits and problems of market segmentation.
- Market growth and share, calculation
 - Definition of market share and growth, calculation using appropriate data, interpreting these data and results of calculations.
- Niche and mass marketing, examples in practice and relative merits
 - Distinction between niche and mass marketing, ability to identify niche marketing such as Tie Rack, relative merits of both approaches.
- Market positioning and re-positioning, unique selling point
 - Reasons for market positioning and re-positioning
 - The importance of the unique selling point and product differentiation.

2.2 Market research

Types of Research

- Methods of market research, primary and secondary
 - Reasons for and types of research, the usefulness of techniques.

Sampling

- Sampling methods and their relative merits and problems, pros and cons of sampling in general
 - Suitable sampling methods such as convenience, quota, stratified, cluster, random, multi-stage, convenience
 - Reasons for sampling and the potential problems of sampling discrepancy and human bias.
- Use of normal distribution and calculation of the standard deviation, significance of results, problems and benefits of using normal distribution analysis
 - Definition of normal distribution and interpretation of the normal distribution curve, the uses of the normal distribution for businesses, the limitations of the normal distribution, calculation and interpretation of standard deviation results.

Forecasting

- Quantitative and qualitative methods of forecasting, such as the Delphi technique and time series analysis 3 or 4 period moving average, trend, variation, plotting, line of best fit and predicting future values/extrapolation
 - Qualitative techniques such as the Delphi method, historical analogy, market surveys, personal insight and panel consensus
 - Calculation and interpretation of time series analysis data, construction of 3, 4 and 12 period moving averages, trend, lines of best fit, variation and future values
 - Relative merits of forecasting methods in a business context.

2.3 Elasticity

Price Elasticity of Demand (PED)

- Definition, diagrams, calculation, determination of optimal pricing policy (total revenue changes), general uses and problems of the method, factors affecting the PED, how PED is estimated
 - Full use and limitations of price elasticity of demand for a business, definition, calculation and interpretation of data gained from relevant calculations.

Income Elasticity of Demand

- Definition, calculation and interpretation of income elasticity of demand.

Advertising Elasticity of Demand

- Definition, calculation and interpretation of advertising elasticity of demand.

2.4 The Marketing MixPrice

- Pricing strategies based on cost, such as contribution, including special order decisions, customers/market such as price discrimination and competition based such as destroyer pricing
 - Identification, calculation and discussion of pricing strategies based on cost, customers and competition
 - Cost-based pricing such as contribution and mark-up, absorption, target based
 - Market-based pricing such as penetration, skimming, loss leaders, price discrimination, discounts and sales, psychological
 - Competition-based pricing such as going rate, destroyer.

Place

- Channels of distribution, e-commerce, intermediaries, wholesalers, agents, choosing a distribution channel
 - Location, types of distribution channel and their appropriateness, physical distribution.

Product

- The product life cycle, the product mix, extension strategies, the Boston Matrix and new product development
 - The product life cycle and its stages from development to decline
 - The product mix/portfolio and potential extension methods such as finding new markets for existing products.

Promotion

- Above and below the line and constraints on advertising
 - Methods of above and below the line promotion and their merits
 - Regulation of advertising such as the Advertising Standards Authority (ASA).
- AIDA, from awareness to action, reviewing advertising, the uses and problems of the model
 - Usefulness of the AIDA model (awareness, interest, desire, action).
- DAGMAR assessing the effectiveness of advertising, from unawareness to action
 - Relative merits of the DAGMAR model (Defining Advertising Goals for Measured Advertising Results), using the communication spectrum of unawareness, awareness, comprehension, conviction, action.

2.5 The Marketing Plan

Marketing Planning

- The elements of the marketing plan such as the marketing audit, SWOT
 - Stages of the plan from the marketing audit, objectives, strategy, review, the use of SWOT analysis, strengths, weaknesses, opportunities, threats.

2.6 Marketing law

- Marketing and the law such as the Sale of Goods Act and the Trade Descriptions Act
 - How legislation relating to marketing impacts upon a business.

2.7 International marketing

- International marketing, the pros and cons of selling in overseas markets whether it be the EU or non-EU
 - Why overseas markets can be different, methods of entering overseas markets such as joint ventures, motives for selling in overseas markets such as increasing profits.

2.8 Marketing strategy

- Ansoff's Matrix, reviewing risk with products and markets, from market penetration to diversification
 - The usefulness of the Ansoff Matrix when businesses are considering growth strategies.
- Offensive marketing strategies, examples of and reasons for.
- Marketing myopia, the danger of a short-sighted approach, recognising and changing to consumer wants
 - Consumer wishes should be at the core of decision making and businesses must carefully monitor consumer trends.

2.9 Value

- Value analysis, cost and benefit, form, function and aesthetics
 - Assessing the balance of value, perception and cost.

Candidates must be able to construct suitable marketing (mix) strategies or construct individual strategies based on one of the 4 Ps.

3. Accounts and Finance

3.1 Costs, revenue contribution and profit

Costs

- Variable cost, average cost, fixed cost, total cost, marginal cost, direct cost, indirect cost, definition and examples
 - Identification and explanation of different types of costs, use of cost data in appropriate calculations.

Revenue

- Total revenue, marginal revenue
 - Calculation and interpretation of revenue data in a business context.

Contribution and Profit

- Calculation of contribution and profit
- Cost and profit centres, their purpose and use in organisations.

3.2 Budgets

Types

- Historical, zero-based budgets
 - The various types of budgets and their relative merits.

Purpose of Budgets

- Problems of setting budgets, uses of budgets
 - The purpose of budgeting as an aid to decision making and control, problems of setting budgets.

Variances

- Calculation and meaning of favourable and adverse variances
 - Calculation and interpretation of variances, their usefulness in assessing business performance.

3.3 Sources of finance

Types of Finance

- Internal versus external sources, external long-term sources and short-term sources
 - Internal sources of finance such as retained profit and asset sales
 - Long-term sources such as shares, mortgages, venture capital
 - Short-term sources such as loans repayable within 12 months, debt factoring.

Determinants of Source of Funds

- Interest rates, gearing, size of business
 - Key determinants of the choice of funds for a given business.

3.4 Investment decisions

Methods of Investment Appraisal

- Pay back period and average rate of return, calculation of PBP and ARR
 - Calculation, interpretation and discussion of the PBP and ARR investment techniques.
- Investment appraisal, Discounted Cash Flow, Net Present Value (NPV), Internal Rate of Return (IRR), calculation of NPV and IRR
 - Calculation, interpretation and evaluation of advanced investment appraisal techniques.

Factors Influencing Investment Decisions

- Motives, business confidence, interest rates
 - The range of factors that influence investment decisions.

3.5 Cash flow

- Methods of improving cash flow, importance of, cash flow forecasts, construction of
 - The importance of cash flow and ways of improving cash flow, calculation and interpretation of cash flow forecasts.

3.6 Break-even analysis

- Break even analysis, margin of safety, calculation of the Break-even output
 - Calculation and interpretation of Break-even data, Break-even point, Margin of Safety, Profit
 - Break-even analysis as a decision-making tool.

3.7 Accounts

- The Balance Sheet and Income Statement, the components of the financial statements and their uses and problems
 - Purpose, role and relative merits of the Balance Sheet and Income Statement.
- Ratio analysis, profitability, activity, liquidity, gearing and shareholder ratios, calculation and interpretation of, uses and problems with
 - Calculation, interpretation and discussion of profitability ratios such as ROCE, RONA, Gross Profit Margin, Net Profit Margin
 - Activity ratios such as Asset Turnover, Inventory Turnover, Debt Collection Period
 - Liquidity ratios such as Current Ratio, Acid Test Ratio
 - Gearing ratios
 - Shareholder ratios such as Dividend Per Share, Return on Equity, Dividend Yield, P/E.

3.8 Depreciation

- Depreciation straight line and declining balance, calculation of, reviewing the book value of a non-current (fixed) asset
 - Calculation, interpretation and discussion of the straight line and declining balance methods.

4. Operations and Project Management

4.1 Production methods

- Job, batch, flow, cell, lean, JIT, flexible specialisation
 - Appropriate production methods and their links with inventory, quality, continuous improvement, Kanban.

4.2 Efficiency

- Economies and diseconomies of scale, diagrammatic representation, types of EOS, internal and external sources
 - Economies of scale such as managerial, marketing, purchasing, technical, risk bearing, financial
 - Diseconomies of scale and the role of communication and coordination failure
 - Distinction between internal and external economies of scale, interpretation and drawing of the appropriate scale diagrams.

4.3 Capacity

- Over and under capacity utilisation, reasons for, the coping zone
 - Explanation of short-run over and under capacity production, implications for a business.

4.4 Quality

- Quality assurance, built-in and inspected quality, total quality management, kaizen, benchmarking, customer service
 - Methods of ensuring quality, understanding quality standards such as benchmarking, analysis of the distinction between inspection and prevention.

4.5 Inventory

- Types of inventory, inventory control charts, buffer inventory, ROL, ROQ, lead times, vendor rating, stock out
 - Identification of the types of inventory such as components, work in progress and finished goods, construction and interpretation of inventory control charts, calculation and discussion of buffer inventory levels, re-order levels, re-order quantities, lead times, vendor rating.

4.6 Managing projects

- Project management, critical path analysis, deciding and constructing the critical path
 - The integrative nature of project management, calculation, manipulation and interpretation of CPA, node construction, EST, LFT, the critical path, total float, free float, dummy activities.
- Gantt charts, activities and time
 - Interpretation and analysis of Gantt charts.
- Location of businesses, infrastructure, business parks, industrial inertia, grants and subsidies
 - Factors influencing the location or relocation of a business
 - The benefits of business parks, agglomeration, grants and subsidies and their role in the location of business.

4.7 Competitive advantage

- Research and development, its role in keeping a competitive edge, in house and externally sourced
 - The benefits of R&D, sources of innovation from within and/or external links such as university departments.

4.8 Reducing waste

- Waste management and control, waste minimisation, benefits and problems of waste management and factors influencing waste management
 - Methods of reducing waste, legal issues, ethical concerns, cost reduction, agency assistance such as the Carbon Trust.

4.9 Trends in cost control

- Outsourcing, cutting costs and/or better service, examples of and reasons for
 - Motives behind outsourcing, reducing costs v. level of service.
- Off-shoring, reasons for and examples
 - Off-shoring, relative merits, trends in and business examples.

5. People in Organisations

5.1 Motivation

Monetary and non-monetary motivation

- Monetary methods
 - Remuneration methods such as hourly, salary, bonuses, PRP, profit sharing, share ownership, fringe benefits, commission, piece rates, suitability of payment methods in different business scenarios.
- Non-monetary methods
 - Non-monetary methods such as delegation, job enrichment, job enlargement, team working, empowerment, job rotation, innovative techniques such as Saatchi and Switch.

Employee participation

- Worker directors, consultative committees, works councils, suggestion boxes
 - The pros and cons of participative decision making, merits of methods, link to collective bargaining.

Motivational Theory

- Taylor, Maslow, Mayo, Herzberg, McClelland, Vroom, Equity theory
 - Motivational theories, relative merits of individual theories.
- The Hackman and Oldham job characteristics model, evaluating job enrichment, psychological states and core job dimensions
 - Understanding of this model, assessment of the model.

5.2 Leadership and management styles

Styles of management

- Autocratic, paternalistic, democratic, laissez-faire, McGregor's Theory X and Y, suitability in different business environments, leadership and facilitation
 - Leadership styles, suitability in business scenarios, functions of management.

5.3 Management by objective

- Drucker and MBO, inflexibility of approach, ideas and strategy from all levels
 - Problems and advantages of MBO.

5.4 Labour turnover

- Impact on the business and determinants, calculation, methods of reducing
 - Calculation and definition of labour turnover, causes, solutions, pros and cons of a high rate of labour turnover.

5.5 Absenteeism

- Absenteeism, calculation, causes and remedies
 - Calculation and discussion of absenteeism, primary causes, potential solutions, impact on a business.

5.6 Human resource management and work force planning

Recruitment

- Internal and external recruitment, methods of selection
 - Job analysis, job evaluation, description, person specification, attracting applicants, curriculum vitae, selection procedures, interviews, intelligence tests, personality tests, relative merits of internal v. external recruitment, assessing recruitment procedures, recycling employees – recruiting ex-employees.

Training

- Induction, on and off the job training
 - The role, mechanics and relative merits of induction training and its link to competitiveness, quality and participation, Training Needs Analysis (TNA), training methods and evaluation, Investor in People (IiP).

The Workforce Plan

- The elements of the workforce plan, assessing the effectiveness of people management, impact of flexible working practices
 - The elements of the workforce plan, staff audit – analysing current employees, staff targets – forecasting demand for employees, planning internal and external supply of staff
 - Implications and benefits of flexible working on employers/employees.

Organisational Structure

- Span of control, hierarchy, chain of command, delayering/downsizing, relative merits of delegation, centralised and decentralised.

5.7 Change management

- The management of change, internal or external change, managing change and resistance to it
 - Management of change, reasons for change such as competitor actions, why is change resisted such as preserving current hierarchy, strategies for effective change, change culture.

5.8 Employment law and collective representation

- The principles of employment law, employment contract, dismissal, redundancy, minimum wage and other legislation/acts
 - Employment laws such as the minimum wage, sex discrimination, Health and Safety, the employment contract and its role, dismissal, grounds for, unfair dismissal, appeals, redundancy legislation, impact of employment legislation on businesses.
- Trade unions, collective labour law, union recognition and union density, pros and cons of union involvement in business activity
 - The role of trade unions in the work place, benefits of unions to employees and employers, collective bargaining, unions and legislation, forms of industrial action, determinants of union strength, union density, potential drawbacks of union involvement, role of the Trade Union Congress (TUC), union recognition.
- Employer, employee and advisory organisations, such as ACAS, TUC, CBI, the diverse role of these bodies
 - The work of advisory organisations, Advisory Conciliation and Arbitration Service (ACAS), Confederation of British Industry (CBI), Training and Enterprise Councils.

5.9 Labour markets

- The labour market, skills shortages, determinants of labour demand and supply
 - The determinants of labour demand and supply, impact of skill shortages.
- EU enlargement and the impact of large-scale immigration on the labour market
 - The impact of immigration on the domestic labour market, potential pros and cons, sources of new labour supply.

5.10 Business Communication

- Purpose of communication
 - Purpose, i.e. to ensure the desired response, simple examples to show this.
- Barriers to effective communication
 - Barriers such as attitudes, perceptions, noise, inappropriate media.
- Communication methods
 - Standard methods, strengths and weaknesses of each method, their relative appropriateness in different circumstances and for different people.

Appendix 1: Paper 3 – Personal Investigation

Structure

The Personal Investigation will represent 25% of the total marks available for the subject. The Personal Investigation will be marked out of a total of 100.

Setting Advice, Submission and Marking

The Personal Investigation will be internally set.

All Centres will be required to complete a standard Personal Investigation proposal form which will outline (a) the scope of the investigation (b) the content areas of the syllabus on which the investigation is likely to draw (c) the research methods that are expected to be used and (d) the time-line for progress. The teacher and candidate must indicate their agreement by signing the proposal. This form will need to be submitted to CIE at the outset of the investigation.

Teachers *can* provide guidance on (a) the *choice* of business problem, (b) the *range* of research methodologies that are available, (c) the *range* of data presentation styles that are available (e.g. tables, graphs, statistics, etc.), and (d) *how* to find sources of information. Teachers may read a maximum of one draft of the report and indicate which *parts* of the draft they consider to be weak (in terms of the assessment objectives). Teachers must *not* do any of the research (e.g. data collection or analysis) and they must *not* write nor revise any of the report. Teachers must *not* supervise the writing of the report.

At the time of submission the candidate will be required to sign a declaration that the report is their own work and the teacher will need to counter-sign that they believe that the work is that of the candidate. Teachers are required to be vigilant to the possibility of collusion between candidates or failure to acknowledge sources. Teachers must report such cases to CIE. The report will need to be submitted in a standard electronic format specified by CIE (e.g. Microsoft Word rich text format).

The report will be externally marked.

Timescale for Personal Investigations

It is anticipated that the Personal Investigations will be approved by October of the second year of the course (date to be advised) and submitted before the examination session at the end of the course (date to be advised).

Choice of Personal Investigation

Candidates will undertake an individual, independent investigation into a business problem faced by an *existing* small/medium-sized business. The organisation may be a sole trader, partnership or small private limited company. There is also scope for business investigations within a school environment, for example change of use/development of a café or shop, but the focus must be on an 'autonomous' business, not a service funded or provided by the school. Investigations into Public Limited Company businesses will not meet this criteria, although a *local* problem faced by a *local* franchisee of a national business would be considered as long as it did not stray into the realms of a big national problem.

Titles should take the form of a question that addresses a specific problem or possible development, for example:

- Should Tasty Treats takeaway offer home delivery/purchase a delivery van?
- How might the local shop Jim's Hardware improve profitability?
- Should Le Petit Chien café extend its opening hours?
- How might Super Buy convenience store decrease staff absenteeism?
- Should the computer shop Perfect PCs relocate?

Report

Candidates will produce a final report of at least 3000 words, which will be fully ICT based, produced in font size 12 and word counted. *Any report over 3500 words will be returned to the Centre unmarked.* If, due to a disability or other reason, a candidate may be unable to produce an ICT-based report then the Centre should contact CIE prior to the candidate commencing the course, so that alternative access arrangements for this part of the syllabus can be discussed.

Reports will include the following: cover page with word count, contents page, business background and problem in context, objectives, research methodology, research results, conclusions, recommendations and evaluation, bibliography and appendix (maximum 6 pages of relevant appendices, not included in word count).

Assessment Criteria

The report will be externally marked using the following criteria.

Assessment Criteria	Description	Level Descriptors
Knowledge (4 marks)	The Problem in Context	<p>Band 3: 4 marks. Includes a full and detailed description of the nature of the business problem, why a solution is required, who it affects and future implications of failure to solve the problem.</p> <p>Band 2: 3–2 marks. Includes a full description of the nature of the business problem and who it affects, demonstrating some understanding of implications of failure to solve the problem.</p> <p>Band 1: 1 mark. Includes a description of the business problem which is lacking in detail and depth.</p> <p>Band 0: 0 marks. No relevant material.</p>
Application (4 marks)	Methodology – Quality and Relevance of the Research	<p>Band 3: 4 marks. Clear evidence of relevant primary and secondary research, including the ability to comment critically on methods used.</p> <p>Band 2: 3–2 marks. Clear evidence of relevant primary and secondary research, including the selection of appropriate research methods.</p> <p>Band 1: 1 mark. Some evidence of primary or secondary research.</p> <p>Band 0: 0 marks. No evidence of research.</p>
Analysis (24 marks)	Analysis of Research Findings and Use of Business Theory	<p>Band 5: 24–21 marks. Substantial analysis of the data, selective use of various written and numerate techniques to identify causes and/or possible solutions and showing judgement in techniques used. Comprehensive and accurate use of relevant business theory throughout.</p> <p>Band 4: 20–16 marks. Substantial analysis of the data using various written and numerate techniques to demonstrate insight and depth. Accurate use of relevant business theory throughout.</p> <p>Band 3: 15–11 marks. Some analysis of the data using written and numerate techniques, showing understanding but lacking insight and depth. Accurate use of relevant business theory throughout.</p> <p>Band 2: 10–6 marks. Some analysis of the data using written or numerate techniques, showing understanding but lacking insight and depth. Accurate but limited use of business theory.</p> <p>Band 1: 5–1 mark. Limited analysis of the data using written or numerate techniques, showing understanding but lacking insight and depth. Limited use of business theory.</p> <p>Band 0: 0 marks. No relevant analysis or theory.</p>

Evaluation (28 marks)	Conclusions, Recommendations and Evaluation	<p>Band 5: 28–25 marks. Appropriate conclusions and recommendations fully justified by the evidence, showing awareness of wider issues and their implications for the business concerned. Detailed evaluation of the strengths and limitations of the investigation and suggested solution(s).</p> <p>Band 4: 24–19 marks. Appropriate conclusions and recommendations fully justified by the evidence. Detailed evaluation of the strengths and limitations of the investigation and suggested solution.</p> <p>Band 3: 18–13 marks. Appropriate conclusions and/or recommendations partially justified by the evidence. Some evaluation of the strengths and limitations of the investigation.</p> <p>Band 2: 12–7 marks. Some conclusions and/or recommendations partially justified by the evidence. Limited evaluation of the strengths and limitations of the investigation.</p> <p>Band 1: 6–1 mark. Limited conclusions and/or recommendations.</p> <p>Band 0: 0 marks. No conclusions drawn.</p>
Communication (40 marks)	Presentation of Report	<p>First refer to Descriptor Table for Communication Assessment Criteria.</p> <p>Band 8: 40–36 marks. Reports in this band must also clearly communicate (valid) limitations of the investigation. There will be little (or no) information that is not directly relevant to the candidate's subject of investigation. To reach the top of the band the report will <i>communicate</i> the candidate's substantial depth of understanding of the relevant business theory, the problem investigated and its solution (or potential solution), and the report as a whole will be convincing and comprehensive (allowing for the upper limit of 3500 words).</p> <p>Band 7: 35–31 marks. To reach the top of the band the report will contain little (or no) information that is not directly relevant to the candidate's subject of investigation.</p> <p>Band 6: 30–26 marks. To reach the top of the band the recommendations must be convincing by being based on sound reasoning from the theory, data and/or results.</p> <p>Band 5: 25–21 marks. To reach the top of the band the reasons for choice of research methodology must be communicated clearly and the recommendations must be realistic.</p> <p>Band 4: 20–16 marks. To reach the top of the band the bibliography must be logically organised and include details of most or all the references cited in the main body of the report.</p> <p>Band 3: 15–11 marks. To reach the top of the band there must be relevant use of tables, diagrams and/or other illustrations.</p> <p>Band 2: 10–6 marks. To reach the top of the band the report must <i>communicate</i> the candidate's understanding of research methodology and list some references.</p> <p>Band 1: 5–1 marks. To reach the top of the band there must be recognisable objective(s), data and conclusions.</p> <p>Band 0: 0 marks. Poorly expressed ideas. Many errors in grammar, punctuation and spelling.</p>

The marking criteria form a hierarchical list. It will not be possible for a candidate to attain a high level if they have failed to do what is needed for a lower level. However, this requirement should not be interpreted slavishly. A best-fit rule can be applied in judging whether a particular mark has been achieved. Mid-range marks should be used if, for example, several of the criteria for a particular level have been met but not all.

Descriptor Table for Communication Assessment Criteria

Descriptor	Band 1	Band 2	Band 3	Band 4
ICT based	Not used or very limited use	Limited use	Partial use	Fully used but standard poor
Grammar, punctuation, spelling	Many errors in all categories	Many errors in one or two categories	Below expected standard; many errors	Below expected standard
Report structure	Lacking structure and/or headings	Some order, with headings	Has limited structure	Has reasonable structure
Use of tables, diagrams, illustrations	Very limited or non-existent	Limited use and lacking relevance	Included but lacking relevance	Included and sometimes relevant
Expression of ideas	Limited or lacking relevance	Simple; may lack relevance	Simple; not always relevant	Simple; relevant
Objectives	Very limited or non-existent	Partly included	Included but no elucidation	Included with some elucidation
Methodology	Very limited or non-existent	Incomplete	Included but no reasons of choice given	Reasons of choice given but not clearly communicated
Data	Very limited or non-existent	Included but inaccuracies present	Included, appears accurate but poor presentation	Included, accurate and well presented
Analysis	Very limited or non-existent	Included but shows very limited understanding/lacks detail	Included but shows limited understanding/lacks detail	Included with good detail
Results	Very limited or non-existent	Some results included	Included but poor presentation	Included, well presented
Conclusions	Very limited or non-existent	Included	Included with limited evaluation of investigation	Included with some use of evidence as justification for conclusions
Recommendations	Very limited or non-existent	Limited recommendations given	Included but unrealistic	Included; realistic but reasoning not included
Bibliography	Very limited or non-existent	Incorrect/limited referencing	Some references	Adequate references

Descriptor	Band 5	Band 6	Band 7	Band 8
ICT based	Fully used, of expected competency	Fully used; to a good standard	Fully used; to a very good standard	Fully used; to an excellent standard
Grammar, punctuation, spelling	Of expected standard; occasional errors	High standard; few errors	Very high standard; very few errors	Excellent standard
Report structure	Logical, in sections; structure as would be expected	Logical, in sections; good structure	Logical, in sections; very good structure	Logical, in sections; excellent structure
Use of tables, diagrams, illustrations	Included and mostly relevant	Included and relevant	Included, relevant and referred to	Included, relevant and referred to, showing good understanding
Expression of ideas	Moderately complex; relevant	Moderately complex; relevant; expression not always fluent	Complex; relevant; reasonably fluent expression	Complex; relevant; fluent expression
Objectives	Included with reasonable elucidation	Clear elucidation	Very clear elucidation	Excellent elucidation
Methodology	Reasons of choice although lacks understanding of rationale	Reasons for choice clearly communicated	Reasons for choice clearly communicated; good understanding of rationale	Excellent communication of reasons for choice displaying full understanding of rationale
Data	Included with limited elucidation	Included with full elucidation	Good elucidation	Excellent elucidation
Analysis	Included with good detail and well organised	Included and shows some elucidation	Clear elucidation	Excellent elucidation; well organised.
Results	Included with limited elucidation	Included with some elucidation	Clear elucidation	Excellent elucidation
Conclusions	Appropriate conclusions justified by evidence	Realistic conclusions displaying understanding	Clear elucidation of conclusions; displays good understanding	Excellent elucidation and understanding
Recommendations	Realistic but limited reasoning	Realistic; reasoning good in some areas	Realistic; reasoning communicated well from theory, data and/or results	Realistic; reasoning communicated well from theory, data and/or results; convincing
Bibliography	Adequate, relevant references	Includes details of all references cited in main text	Logical; includes details of all references cited in main text	Logical, clearly presented; details of all references cited in main text

Appendix 2: Performance Descriptors

The following performance descriptors indicate the level of attainment characteristic of the given grade. They give a general indication of the required standard at each specified grade. The descriptors should be interpreted in relation to the content outlined in the syllabus; they are not designed to define that content.

The grade awarded will depend in practice upon the extent to which the candidate has met the assessment objectives overall. Shortcomings in some aspects of the examination may be balanced by better performance in others.

Distinction (D2)

Candidates will demonstrate in-depth knowledge and critical understanding of relevant business theories and concepts and apply this knowledge to business problems and issues using appropriate quantitative and non-numerical techniques. Candidates will be acutely aware of the limitations and uses of such techniques. Evidence will be thoroughly analysed and a range of viewpoints will be synthesised into coherent conclusions that are supported with appropriate evidence. Candidates will be expected to develop effective and coherent strategic responses to set stimulus questions and formulate potential plans within the constraints placed upon the business. Candidates will show the ability to see trends in complex information and use raw business data to inform business strategy. Excellent grasp of the subject terminology will be expected.

Merit (M2)

Candidates will demonstrate an in-depth knowledge and understanding of relevant business theories and concepts and apply this knowledge to business situations. Candidates will be expected to use quantitative techniques to interpret data and form judgements. Evidence will be analysed and different viewpoints considered. Candidates will be expected to develop strategic responses to specific business issues. Appropriate terminology will generally be used. Supported conclusions based on evidence will be expected.

Pass (P2)

Candidates will demonstrate knowledge and understanding of relevant business theories and concepts. They will show some ability to link answers to specific business examples. They will make some use of quantitative and non-numerical techniques to support their answers. Evaluation and supported conclusions will be limited. The ability to analyse arguments will be evident but limited.

Appendix 3: Additional Information

Guided Learning Hours

It is intended that each Principal Subject should be delivered through 380 hours of guided learning. This is a notional measure of the substance of the qualification. It includes an estimate of the time that might be allocated to direct teaching or instruction, together with other structured learning time such as directed assignments or supported individual study and practice. It excludes learner-initiated private study.

Certification Title

This qualification is shown on a certificate as:

Cambridge International Level 3 Pre-U Certificate in **Business and Management (Principal)**

The qualification is accredited at Level 3 of the UK National Qualifications Framework and provides a solid grounding for candidates to pursue a variety of progression pathways.

Entries

For Entry information please refer to the *Pre-U E3 Booklet*.

Grading and Reporting

The Cambridge International Level 3 Pre-U Certificates in the Principal Subjects are qualifications in their own right. They are acceptable as an alternative to A Level (or other Level 3 qualifications) for entry into Higher Education or employment. Each individual Principal Subject is graded separately on a scale of nine grades: Distinction 1, Distinction 2, Distinction 3, Merit 1, Merit 2, Merit 3, Pass 1, Pass 2, Pass 3.

Subjects can also be combined with two core components to meet the requirements for eligibility for the Cambridge International Level 3 Pre-U Diploma. More details about the Diploma requirements and the core components can be found in a separate Diploma syllabus. The results of the individual Principal Subjects are reported on a separate certificate to the Diploma result.

Classification Code for UK Centres

In the UK, every syllabus is assigned to a national classification code that indicates the subject area to which it belongs. UK Centres should be aware that candidates who enter for more than one qualification with the same classification code will have only one grade (the highest) counted for the purpose of the School and College Performance Tables.

The classification code for this syllabus is **3210**.

Language

This syllabus and the associated assessment materials are available currently in English only.

Procedures and Regulations

This syllabus complies with the *CIE Code of Practice* and *The Statutory Regulation of External Qualifications 2004*.

Further information about the administration of Cambridge Pre-U qualifications can be found in the *CIE Handbook for Cambridge Pre-U Centres* available from CIE Publications or by contacting international@cie.org.uk

Spiritual, Moral, Ethical, Social, Legislative, Economic and Cultural Issues

This specification addresses all the above issues. Candidates are expected to have an awareness of key legislation such as the Disability Discrimination Act and minimum wage legislation. Economic factors such as interest rates are covered in detail in the Business Environment section. Ethical considerations are explicitly considered in the specification (i.e. possible conflicts and resolution, ethical code, ethical investments, Fair Trade). Social, spiritual and moral aspects covered in the syllabus include globalisation, the variety of objectives that stakeholders have, public and private ownership, demographic changes, external costs, environmental policy, the growth of the 'green pound', corporate social responsibility and corporate governance.

Sustainable Development, Environmental Education, Health and Safety Considerations, European Dimension and International Agreements

Health and Safety issues are considered within the Legislation sub-section in The Business Environment section and in the People in Organisations section.

CIE has developed this syllabus in line with UK, European and international legislation and agreements. This syllabus provides opportunities to consider the European dimension. The European Union is specifically dealt with under the sections on Business Environment, Marketing and People in Organisations.

Avoidance of Bias

CIE has taken great care in the preparation of this syllabus and associated assessment materials to avoid bias of any kind.

Key Skills

This syllabus provides opportunities for the development of evidence for the Key Skills of: *Communication, Application of Number, Information Technology, Working with Others, Improving Own Learning and Performance* and *Problem Solving* at Levels 2 and/or 3. However, the extent to which this evidence fulfils the Key Skills criteria at these levels will be totally dependent on the style of teaching and learning adopted for each section.

The Key Skills awarding bodies and the regulatory authorities have produced a suite of example portfolios that will help to give candidates and practitioners a clear understanding of the requirements for the Key Skills portfolio. These are available on the QCA Key Skills website (www.qca.org.uk/keyskills). Full details of the requirements for certification can be obtained from the awarding bodies that are approved to offer Key Skills. For further information about Key Skills assessment, including the current standards, please see the document *The Key Skills qualifications standards and guidance* published by the Qualifications and Curriculum Authority 2004 (ISBN 1 85838 548 2).

The following table indicates where opportunities may exist for at least some coverage of the various Key Skills criteria at Levels 2 and/or 3 for each section.

Section/Unit/ Module	Communication	Application of Number	IT	Working with Others	Improving Own Learning and Performance	Problem Solving
1	✓	✓	✓	✓	✓	✓
2	✓	✓	✓	✓	✓	✓
3	✓	✓	✓	✓	✓	✓
4	✓	✓	✓	✓	✓	✓
5	✓	✓	✓	✓	✓	✓

University of Cambridge International Examinations
1 Hills Road, Cambridge, CB1 2EU, United Kingdom
Tel: +44 1223 553554 Fax: +44 1223 553558
Email: international@cie.org.uk Website: www.cie.org.uk

© University of Cambridge International Examinations 2007