

ACCA

Paper 2.1

INFORMATION SYSTEMS

For exams in 2005

Practice & Revision Kit



Donghua university Press

 東華大學出版社

BPP
PROFESSIONAL EDUCATION®

ACCA

PRACTICE & REVISION KIT

Paper 2.1

Information Systems

本书由英国 BPP 出版有限公司授权出版,版权登记号:图 09-2003-106

Copy right ©First edition 2001

Fifth edition January 2005

Published by

BPP Publishing Limited

Adine House, Aldine Place

London W128W

国书在版编目(CIP)数据

信息系统练习/英国 BPP 出版有限公司编. —上海:东华大学出版社,2003. 3

(ACCA 注册会计师资格考试丛书)

ISBN 7-81038-582-8

I. 信... II. 英... III. 会计—管理信息系统—会计师—资格考核—英国—习题—英文 IV. F323—44

中国版本图书馆 CIP 数据核字(2003)第 017435 号

责任编辑 紫 仪

封面设计 陈 文

Information Systems

Practice & revision kit

信息系统练习

东华大学出版社出版

(上海市延安西路 1882 号 邮政编码:200051)

新华书店上海发行所发行 常熟市大宏印刷有限公司印刷

2003 年 3 月第 1 版 2005 年 2 月第 1 次印刷

开本:889×1194 1/16 印张:18.5 字数:420 千字

ISBN 7-81038-582-8/F·67

定价:130.00 元

TOPIC INDEX

Listed below are the key Paper 2.1 topics and the numbers of the questions in this Kit covering those topics.

If you need to concentrate your practice and revision on certain topics or if you want to attempt all available questions that refer to a particular subject (be they preparation or exam-standard), you will find this index useful.

Syllabus topic	Question numbers (ME = Mock exam)
Access controls	50, 52
Analysts	95
Application controls	48
Application software package	33, 76, 77
Architecture	86
Audit trail	103
Back-up procedures	ME1 Q1
Bespoke solution	76
Business strategy	1, 5
CASE tool	23, 24, 25, 73, 96, ME2 Q5
Centralisation	7
Centralised system	3, 6, 7, 8, ME1 Q1
Change control	97, 99, ME1 Q4
Changeover	21, 64, 97, 103, ME1 Q5, ME2 Q2
Check digits	49
Communication	16, 68, 71, 85, ME1 Q4
Computer Misuse Act	54, 55
Conflict	16
Consistency checks	49
Contingency plan	51, 88, 89, ME2 Q6
Controls	52
Costs and benefits	11, 60, 61, 75, ME1 Q5, ME2 Q1
Critical path	12, 17, 18, 67, 88, ME2 Q4
Critical success factors	59
Cross charging	98
Data collection	62, 102
Data conversion	103
Data flow diagrams	30, 32, 35, 94, 95
Data protection	53, 93, 103, ME2 Q6
Data verification	49
Decentralisation	3, 6, 7, 8, ME1 Q1
Decentralised	3, 6, 7, 8, ME1 Q1
Decision table	20, 28, 44, 47, ME2 Q3
Developing an IS strategy	2
Development controls	45
Disaster recovery	5
Discounted cash flow (DCF)	61
Distributed processing	ME1 Q1
Economic feasibility	11, 19, 61, ME2 Q1

Syllabus topic	Question numbers (ME = Mock exam)
Encryption	51, 54
End-user development	7, 37
Entity life history	27, 29, 31
Entity relationship model	31
Environmental scanning	62
Ergonomics	ME1 Q6
Evaluation (see also system evaluation)	45, 87, ME1 Q5
Event models	26, 27, 29, 33, 34
Feasibility	11, 14, 19, 21, 61, 62, 63, ME2 Q1
Flat structure	3, 95
Flowcharting and flowcharts	20, 34, 35
Fourth Generation Languages	37, 73, ME2 Q5
Gantt Charts	88
GUI	102
Hacking	53, 54, 55
Implementation	21, 22, 23, 24, 25, 26, 103, ME1 Q5
Information centres	37, 85, ME2 Q2
Information for decision making	86
Information gathering	33, 62
Information requirements	22, 59
Information systems strategy	2, 3, 5
In-house software development	59, 69
Input controls	49, 52
Integrated systems	60
Internet strategy	4
Interviews	20
Investigation	20, ME2 Q5
Investment appraisal	6, 61
Invitation to tender	39, 100, ME1 Q3
ISO 9001	91
IT strategy	4, 80
Leadership style	16, ME1 Q4
Legacy systems	9
Maintenance	21, 22, 42, 46
Methodology	24, 87, 96
Mission	34
Net present value (NPV)	61
Network diagram	12, 17, 18, ME2 Q4
Observation	20
Operational feasibility	11, 19, 63
Operational information	86
Organisational structure	3
Output controls	52

Topic index

Syllabus topic	Question numbers (ME = Mock exam)
Output design	38, ME1 Q6
Outsourcing	3, 4, 9, 69, 72, 97, ME1 Q2, ME2 Q2
Payback	61
Physical access controls	48, 50
Post-implementation	45, 68
Process models	30, 32, 92, 96
Processing controls	52
Project costs and benefits	15, 88
Project initiation	16
Project management	19, 70, 71, 88, 89, 101 ME1 Q4
Project management software	9, 13
Project manager	70, 71, 88, 89, 95
Project plan	89, 101
Project quality plan	101
Project review	45
Project sponsor	89
Prototyping	25, 40, 54, 71, 72, 92
Quality	87, 91, 97, 101
Questionnaires	20, 59
Requirement analysis	59, 99
Requirements specification	59, 99
Risk management	5, 18, 89
Screen design	49, ME1 Q6
Security	48, 49, 50, 51, 52, 53, 54, 55, 83, 103
Sequential model	24
Service level agreement	64, ME2 Q6
Social feasibility	11, 19
Software design	36, 40
Software package	76, 77
Spiral model	26, 27
Staffing controls	48, 52
Stakeholders	89
Static structure models	34
Steering committee	56
Strategy	1, 2, 4, 5, 80
Structure	3, 95
Structured techniques	24, 58, 64, 87
Structured walkthrough	82
Support contracts	10, 66
System design	20-26, 90, 97, ME2 Q5
System development lifecycle	21, 22, 57, 78
System evaluation	45, 87, ME 1 Q5
System performance	87, 91
System testing	46, 47
Tactical information	86
Technical feasibility	11, 19, 62
Terms of reference	101

(x)

Syllabus topic	Question numbers (ME = Mock exam)
Testing	20, 41, 44, 46, 47, 91
Training	65
Unit testing	46, 91
Usability	40, 47, 82, 91, 103, ME1 Q6
User friendliness	40, 47, 82, 102, ME1 Q6
User groups	46, 66
User involvement	46, 66, 82, ME2 Q3
User opposition	43, ME2 Q3
User requirements	82, 87, 96, 99, ME2 Q3
User-acceptance testing	41
Viruses	53, 55
'V' model	91, 94
Waterfall model	25, 27
Work breakdown structure (see also Critical path analysis and Project management)	88

EFFECTIVE REVISION

What you must remember

Effective use of time as you approach the exam is very important. You must remember:

Believe in yourself
Use time sensibly

Believe in yourself

Are you cultivating the right attitude of mind? There is absolutely no reason why you should not pass this exam if you adopt the correct approach.

- **Be confident** – you've passed exams before, you can pass them again
- **Be calm** – plenty of adrenaline but no panicking
- **Be focused** – commit yourself to passing the exam

Use time sensibly

- 1 **How much study time do you have?** Remember that you must **eat, sleep**, and of course, **relax**.
- 2 **How will you split that available time between each subject?** A **revision timetable**, covering **what** and **how** you will revise, will help you organise your revision effectively.
- 3 **What is your learning style?** AM/PM? Little and often/long sessions? Evenings/weekends?
- 4 **Do you have quality study time?** Unplug the phone. Let everybody know that you're studying and shouldn't be disturbed.
- 5 **Are you taking regular breaks?** Most people absorb more if they do not attempt to study for long uninterrupted periods of time. A five minute break every hour (to make coffee, watch the news headlines) can make all the difference.
- 6 **Are you rewarding yourself** for your hard work? Are you leading a **healthy lifestyle**?

What to revise

Key topics

You need to spend most time on, and practise full questions on, **key topics**.

Key topics

- Recur regularly
- Underpin whole paper
- Appear often in compulsory questions
- Discussed currently in press
- Covered in recent articles by examiner
- Shown as high priority in study material
- Tipped by lecturer

Difficult areas

You may also still find certain areas of the syllabus difficult.

Difficult areas

- Areas you find dull or pointless
- Subjects you highlighted as difficult when taking notes
- Topics that gave you problems when you answered questions or reviewed the material

DON'T become depressed about these areas; instead do something about them.

- Build up your knowledge by **quick tests** such as the quick quizzes in your BPP Study Text.
- Work carefully through **numerical examples** and **questions** in the Text, and refer back to the Text if you struggle with computations in the Kit.
- **Note down weaknesses** that your answers to questions contained; you are less likely to make the same mistakes if you highlight where you went wrong.

Breadth of revision

Make sure your revision has sufficient **breadth**. You need to be able to answer all the compulsory questions and enough optional questions on the paper. On certain papers all major topics in the syllabus will be tested, through objective test questions or longer questions. On other papers it will be impossible to predict which topics will be examined in compulsory questions, which topics in optional questions.

Paper 2.1

In this paper it is essential that you understand how information systems are developed, implemented, evaluated and utilised in business. You must be able to apply knowledge to the specific circumstances described in the question. Focus on practical and business issues rather than becoming too bogged with technical detail.

How to revise

There are four main ways that you can revise a topic area.

Write it!
Read it!
Teach it!
Do it!

Write it!

The Course Notes and the Study Text are too bulky for revision. You need a slimmed down set of notes that summarise the key points. Writing important points down will help you recall them, particularly if your notes are presented in a way that makes it easy for you to remember them.

Effective revision

Read it!

You should read your notes or BPP Passcards actively, testing yourself by doing quick quizzes or writing summaries of what you have just read.

Teach it!

Exams require you to show your understanding. Teaching what you are revising to another person helps you practise explaining topics. Teaching someone who will challenge your understanding, someone for example who will be taking the same exam as you, can help both of you.

Do it!

Remember that you are revising in order to be able to answer questions in the exam. Answering questions will help you practise **technique** and **discipline**, which examiners emphasise over and over again, can be crucial in passing or failing exams.

Remember that you are revising in order to be able to answer questions in the exam. Answering questions will help you practise **technique** and **discipline**, which examiners emphasise over and over again can be crucial in passing or failing exams.

- 1 Use the shorter questions in this Kit (10 - 15 marks) as a **diagnostic tool**: if you struggle with them go back to your BPP Study Text and Passcards to revise your weaker areas; if you cope well with them, move on. Additional guidance on how to tackle scenario-based questions is given in the 'Plan of attack' that precedes the answers to Mock Exam 1 in this Kit.
- 2 The more exam-standard questions you do, the more likely you are to pass the exam. At the very least, you should attempt the **key questions** that are highlighted from page (xvi) onwards.
- 3 You should produce **full answers** under **timed conditions**, and don't cheat by looking at the answer! Look back at your notes or at your BPP Study Text instead if you are really struggling. Produce answer plans if you are running short of time.
- 4 Always read the **Pass marks** in the answers. They are there to help you, and will show you which points in the answer are the most important.
- 5 **Don't get despondent** if you didn't do very well. Refer to the **topic index** and try another question that covers the same subject.
- 6 When you think you can successfully answer questions on the whole syllabus, attempt the **two mock exams** at the end of the Kit. You will get the most benefit by sitting them under strict exam conditions, so that you gain experience of the four vital exam processes.
 - Selecting questions
 - Deciding on the order in which to attempt them
 - Managing your time
 - Producing answers

BPP's *Learning to Learn Accountancy* book gives further invaluable advice on how to approach revision.

BPP has also produced other vital revision aids.

- **Passcards** – Provide you with clear topic summaries and exam tips
- **Success tapes and Success CDs** – Help you revise on the move
- **Videos** – Show you an overview of key topics and how they are related
- **MCQ cards** - Give you lots of practice in answering MCQs
- **i-Pass CDs** – Offer you tests of knowledge to be completed against the clock

You can purchase these products by completing the order form at the back of this Kit or by visiting www.bpp.com/acca

The exam paper

THE EXAM PAPER

The examination is a **three hour paper** divided into **two sections**.

	<i>Number of Marks</i>
Section A: 3 compulsory questions (20 marks each)	60
Section B: Choice of 2 from 3 questions (20 marks each)	40
	<u>100</u>

Section A is based on a narrative scenario. This section will have three compulsory questions from across the syllabus linked to the narrative scenario. Each question will be worth 20 marks giving a total of 60 marks for this section.

Section B contains three independent questions, one question from each main area of the syllabus. Each question is worth 20 marks. The candidate must answer two questions giving a total of 40 marks for this section.

Additional information

The examination does not assume any use of any systems development methodology. Practical questions will be set in such a way that they can be answered by any methodology. However the following examples of models may be useful:

<i>Syllabus heading</i>	<i>Example models</i>
Documenting and modelling user requirements – processes	Data Flow Diagram Flowchart
Documenting and modelling user requirements – static structures	Entity-relationship model Object Class model
Documenting and modelling user requirements – events	Entity Life History State Transition Diagram

Analysis of past papers

The analysis below shows the topics which have been examined under the new syllabus and in the pilot paper.

December 2004

Not available when this book was sent to print – but may be downloaded from the ACCA website.

This exam can be downloaded from the ACCA's website at www.accaglobal.com/students

June 2004

Section A scenario (three compulsory questions – 20 marks each)

Problems with a new bespoke human resources system

- 1 One from either a Class model, Entity relationship model or Logical data structure model; and one from either a Data flow diagram, Flowchart or Activity diagram
- 2 Critical path analysis, textual and diagrammatic models, Time/Cost/Quality triangle
- 3 Requirements specification; Project Terms of Reference

Section B (two from three questions – 20 marks each)

- 4 Accounting for information systems projects
- 5 Invitation to Tender
- 6 Data conversion issues; Unit testing and system testing

This exam can be downloaded from the ACCA's website at www.accaglobal.com/students

December 2003

Section A scenario (three compulsory questions – 20 marks each)

- 1 Feasibility study and issues
- 2 Software package approach; Performance (load) testing
- 3 System changeover; Project manager and sponsor

Section B (two from three questions – 20 marks each)

- 4 Outsourcing
- 5 Fact gathering techniques for user and system requirements
- 6 Software quality; System maintenance

This exam can be downloaded from the ACCA's website at www.accaglobal.com/students

June 2003

Section A scenario (three compulsory questions – 20 marks each)

- 1 Standardising systems; System costs and benefits
- 2 Software package selection
- 3 System security; Documentation and training

Section B (two from three questions – 20 marks each)

- 4 Project plan; Critical path; Project management software
- 5 External design; User-friendliness; Prototyping; User workshop
- 6 Quality assurance, testing and the V model

This exam can be downloaded from the ACCA's website at www.accaglobal.com/students

The exam paper

December 2002

Section A scenario (three compulsory questions – 20 marks each)

- 1 Terms of Reference; Project Quality Plan
- 2 Data capture; User-friendly interface
- 3 Feasibility issues; Audit trail; Data conversion; Data protection; Implementation

Section B (two from three questions – 20 marks each)

- 4 Business strategy and information systems strategy; Risk management; Disaster recovery
- 5 Viruses, malicious damage and associated legislation
- 6 Process model construction

June 2002

Section A scenario (three compulsory questions – 20 marks each)

- 1 Principles of cross-charging system for IS/IT costs; Problems of cost allocation
- 2 Changing user requirements; Change control; Graphical techniques to define user requirements
- 3 Sections of an Invitation to Tender; Using IS/IT to improve competitiveness

Section B (two from three questions – 20 marks each)

- 4 Decision table; load (performance testing); Usability testing
- 5 Technical, economic, social and operational feasibility
- 6 Waterfall and spiral approach; Event model

December 2001

Section A scenario (three compulsory questions – 20 marks each)

- 1 Role of project manager, systems analyst, programmer, data analyst; Department structure
- 2 Systems development methodologies; Modelling and CASE tools
- 3 Formal specification, quality assurance and change control; Outsourcing

Section B (two from three questions at 20 marks each)

- 4 Network analysis/critical path; Risk management process
- 5 User-friendly software features; Prototyping
- 6 Maintenance; User groups; Testing

Pilot paper

Section A scenario (three compulsory questions – 20 marks each)

- 1 Project risk assessment
- 2 Solving and preventing system problems
- 3 Quality assurance and testing in systems development

Section B (two from three questions at 20 marks each)

- 4 Outsourcing; Legacy systems; Project management software
- 5 Systems analysis interviews; Event model construction
- 6 Post-implementation review; Measuring software effectiveness; Controlling change

EXAM TECHNIQUE

Passing professional examinations is half about having the knowledge, and half about doing yourself full justice in the examination. You must have the right approach at the following times.

Before the exam Your time in the exam hall

Before the exam

- 1 Set at least one **alarm** (or get an alarm call) for a morning exam.
- 2 Have **something to eat** but beware of eating too much; you may feel sleepy if your system is digesting a large meal.
- 3 Allow plenty of **time to get to the exam hall**; have your route worked out in advance and listen to news bulletins to check for potential travel problems.
- 4 **Don't forget** pens, pencils, rulers, erasers, watch. Also make sure you remember **entrance documentation** and **evidence of identity**.
- 5 Put **new batteries** into your calculator and take a spare set (or a spare calculator).
- 6 **Avoid discussion** about the exam with other candidates outside the exam hall.

Your time in the exam hall

- 1 *Read the instructions (the 'rubric') on the front of the exam paper carefully*

Check that the exam format hasn't changed. Examiners' reports often remark on the number of students who attempt too few - or too many - questions, or who attempt the wrong number of questions from different parts of the paper.

- 2 *Select questions carefully*

Read through the paper once, underlining the key words in the question and jotting down the most important points. Select the optional questions that you feel you can answer best. You should base your selection on:

- The **topics** covered
- The **requirements of the whole question**
- How easy it will be to **apply the requirements** to the details you are given
- The availability of **easy marks**

Make sure that you are planning to answer the **right number of questions**, all the compulsory questions plus the correct number of optional questions.

- 3 *Plan your attack carefully*

Consider the **order** in which you are going to tackle questions. It is a good idea to start with your best question to boost your morale and get some easy marks 'in the bag'.

- 4 *Check the time allocation for each question*

Each mark carries with it a **time allocation** of 1.8 minutes (including time for selecting and reading questions, and checking answers). A 25 mark question therefore should be selected, completed and checked in 45 minutes. When time is up, you **must** go on to the next question or part. Going even one minute over the time allowed brings you a lot closer to failure.

Exam technique

5 *Read the question carefully and plan your answer*

Read through the question again very carefully when you come to answer it. Plan your answer taking into account how the answer should be **structured**, what the **format** should be and **how long** it should take.

Confirm before you start writing that your plan makes **sense**, covers **all relevant points** and does not include **irrelevant material**. Two minutes of planning plus eight minutes of writing is virtually certain to earn you more marks than ten minutes of writing.

6 *Answer the question set*

Particularly with written answers, make sure you **answer the question set**, and not the question you would have preferred to have been set.

7 *Gain the easy marks*

Include the obvious if it answers the question and don't try to produce the perfect answer.

Don't get bogged down in small parts of questions. If you find a part of a question difficult, get on with the rest of the question. If you are having problems with something, the chances are that everyone else is too.

8 *Produce an answer in the correct format*

The examiner will **state in the requirements** the format in which the question should be answered, for example in a report or memorandum.

9 *Follow the examiner's instructions*

You will **annoy** the examiner if you ignore him or her.

10 *Lay out your numerical computations and use workings correctly*

Make sure the layout fits the **type of question** and is in a style the examiner likes. Show all your **workings** clearly and explain what they mean. **Cross reference** them to your solution. This will help the examiner to follow your method (this is of particular importance where there may be several possible answers).

11 *Present a tidy paper*

You are a professional, and it should show in the **presentation of your work**. Students are penalised for poor presentation and so you should make sure that you write legibly, label diagrams clearly and lay out your work neatly. Markers of scripts each have hundreds of papers to mark; a badly written scrawl is unlikely to receive the same attention as a neat and well laid out paper.

12 *Stay until the end of the exam*

Use any spare time **checking and rechecking** your script. This includes checking:

- You have **filled out** the **candidate details correctly**.
- Question parts and workings are **labelled clearly**.
- Aids to navigation such as **headers and underlining** are used effectively.
- **Spelling, grammar and arithmetic** are correct.

13 *Don't discuss an exam with other candidates afterwards*

There's nothing more you can do about it so why discuss it?

14 ***Don't worry if you feel you have performed badly in the exam***

It is more than likely that the other candidates will have found the exam difficult too. Don't forget that there is a competitive element in these exams. As soon as you get up to leave the exam hall, ***forget that exam*** and think about the next - or, if it is the last one, celebrate!

BPP's *Learning to Learn Accountancy* book gives further invaluable advice on how to approach the day of the exam.