

IGCSE

Information and Communication Technology (ICT)

Specification

Edexcel IGCSE in Information and Communication Technology (ICT) (4IT0)

First examination 2011

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Acknowledgements

This specification has been produced by Edexcel on the basis of consultation with teachers, examiners, consultants and other interested parties. Edexcel would like to thank all those who contributed their time and expertise to its development.

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Introduction

The Edexcel International General Certificate of Secondary Education (IGCSE) in Information and Communication Technology (ICT) is designed for use in schools and colleges. It is part of a suite of IGCSE qualifications offered by Edexcel.

The Edexcel IGCSE in ICT is designed as a two-year course. It aims to encourage the exploration and study of ICT in a variety of contexts: home, community, business, industry, recreation and education. In any given situation students will have the opportunity to acquire competence, ability and critical skills through the implementation, use and evaluation of a range of ICT systems. Students can develop their interests in, enjoyment of and critical reflections on ICT as an integral part of modern society.

Key subject aims

The Edexcel IGCSE in ICT enables students to:

- acquire and apply ICT skills, knowledge and understanding in a range of contexts
- develop ICT-based solutions to address challenges and solve problems
- develop an understanding of ICT systems
- develop an understanding and awareness of current and emerging technologies
- develop an awareness of the legal, social, ethical and environmental consequences of the use of ICT systems for individuals, organisations and society
- recognise potential risks when using ICT and develop safe, secure and responsible practice.

About this specification

Key features and benefits of the specification

- Modern, relevant content which prepares students for Level 3 qualifications and the world of work.
- 100% examination – single assessment route allowing all students to demonstrate their knowledge, understanding and application of ICT.
- Examination both written and practical.
- Comprehensive and detailed description of subject content.
- Appropriate for students of various ages and from diverse backgrounds in terms of general education and lifelong learning.

Contents

Specification at a glance	1
Qualification content	3
Detailed subject content	4
Assessment	12
Assessment summary	12
Assessment Objectives and weightings	12
Relationship of Assessment Objectives to Papers for IGCSE	13
Entering your students for assessment	13
Student entry	13
Combinations of entry	13
Access arrangements and special requirements	13
Assessing your students	14
Awarding and reporting	14
Language of assessment	14
Malpractice and plagiarism	14
Student recruitment	14
Progression	15
Grade descriptions	15
Support and training	17
Edexcel support services	17
Training	17
Appendices	19
Appendix 1: Glossary	21
Appendix 2: Example Instructions for the Conduct of the Examination (ICE) document	23

Specification at a glance

The Edexcel IGCSE in Information and Communication Technology (ICT) is assessed through:

- a written examination paper
- a practical examination paper.

Paper 1: Written paper	Paper code: 4IT0/01
<ul style="list-style-type: none"> • Externally assessed • Availability: June series • First assessment: June 2011 	50% of the total IGCSE marks
<p>Overview of content</p> <ul style="list-style-type: none"> • ICT Systems • Impact of ICT • Use ICT Systems • Find and Select Information • Develop, Present and Communicate Information 	
<p>Overview of assessment</p> <ul style="list-style-type: none"> • Written paper lasting one hour 30 minutes, set and marked by Edexcel • Single tier of entry • The total number of marks available is 100 	

Paper 2: Practical paper	Paper code: 4IT0/02
<ul style="list-style-type: none"> • Externally assessed • Availability: June series (one-week assessment window in May) • First assessment: June 2011 	50% of the total IGCSE marks
<p>Overview of content</p> <ul style="list-style-type: none"> • Use ICT Systems • Find and Select Information • Develop, Present and Communicate Information 	
<p>Overview of assessment</p> <ul style="list-style-type: none"> • Practical paper lasting three hours (including printing time), set and marked by Edexcel • One-week examination window in May • Single tier of entry • The total number of marks available is 100 	

Qualification content

Content overview

- ICT Systems
- Impact of ICT
- Use ICT Systems
- Find and Select Information
- Develop, Present and Communicate Information.

Assessment overview

Paper 1: Written Paper

This written examination, lasting one hour and 30 minutes, will consist of multiple-choice and short-answer questions. All questions should be attempted. There will be no choice of questions. The questions will be graded and arranged in order of increasing difficulty. The examination is untiered and will be targeted at students across the ability range A* – G.

Paper 2: Practical Paper

This practical computer-based examination, taken under controlled conditions, will consist of structured activities. It will take three hours (including printing time). The examination is untiered and will be targeted at students across the ability range A* – G. A one-week window of assessment will be provided in May.

Conduct of practical assessment

The data files required for the examination will be made available to centres electronically. The procedures for accessing these files and conducting the practical examination are given in the Instructions for the Conduct of Examinations (ICE) document found on the Edexcel website. An example is also included in *Appendix 2* of this specification.

Minimum software requirements

Assessment of the practical examination is software independent. Students can use any hardware, operating system and applications packages in the practical examination. Centres must ensure that students have the facilities to demonstrate fully all of the skills outlined in the learning outcomes.

Detailed subject content

These learning outcomes (LO) define the content of the whole qualification. Please see the glossary provided in *Appendix 1* of this specification for exemplification of terms and abbreviations used.

It is important to note that the learning outcomes are *not* of equal weighting and the amount of time that should be dedicated to each will depend on its content.

The student should be able to:

ICT Systems			Assessed in
Code	Learning outcome	Content	
LO1	Know about different types of ICT systems and be able to give examples of where and how they are used	<p>Types of ICT systems: PCs, laptops and other portable devices, main frame and super computers, embedded computers, games consoles</p> <p>Uses: retail, banking, administration, manufacturing, education, entertainment, communication, number crunching, simulations, modelling, stock control, logistics</p>	Paper 1
LO2	Understand that an ICT system is made up hardware and software	<p>Hardware</p> <p>Input devices: for example keyboard, mouse, tracker ball, joystick, graphics tablet, scanner, digital camera, webcam, microphone, touch screen, OMR, OCR, bar code scanner, biometric scanner, magnetic stripe reader, chip and pin, sensors</p> <p>Processing: processor, memory, ROM, RAM</p> <p>Storage: for example hard disks, optical discs, flash memory, magnetic tape</p> <p>Output devices: for example monitor, printer, plotter, data projector, speakers, control devices</p> <p>Software</p> <p>Systems software: for example operating system, system software tools</p> <p>Applications software: for example office productivity tools, web authoring, image and sound editing, presentation software, control software, project management software</p>	Paper 1

ICT Systems (continued)			Assessed in
Code	Learning outcome	Content	
LO3	Understand data storage capacity terminology	Storage capacity terms: bit, byte and multiples of these (kbytes, mbytes, gbytes, tbytes)	Paper 1
LO4	Be able to select appropriate ICT systems to meet specified needs	<p>User needs: for example business, entertainment, education, communication</p> <p>Hardware: type/speed of processor, amount of memory, capacity of hard drive, external storage devices, type of monitor, type of printer, additional requirements, for example graphics card, sound card</p> <p>Software: operating system, applications software</p> <p>Settings: window size, mouse settings, icon size, screen resolution, desktop contrast, sound volume</p> <p>Other considerations: range of facilities, versatility, speed of transmission, compatibility, performance</p>	Paper 1
LO5	Understand that ICT devices can be linked together to form networks	<p>Networks: wired, wireless; LAN, WAN</p> <p>Network components: cable, router, booster, wireless enabled devices (for example wi-fi, Bluetooth), media streaming devices</p> <p>IP address</p>	Paper 1
LO6	Understand the benefits of establishing a network	Benefits: shared peripherals, shared data, flexible access, media streaming, communication, control of user access rights, centralised administration, simultaneous access to the internet	Paper 1
LO7	Understand how data can be secured on a network	Network security: log-ins and passwords, firewall, WEP/WPA, encryption, file access rights, transaction logs, backups	Paper 1

ICT Systems (continued)			Assessed in
Code	Learning outcome	Content	
LO8	Understand requirements for connecting to the internet	<p>Hardware: modem, router, gateway, communication link</p> <p>Software: web browser, communication software</p> <p>Type of connection: broadband, dial-up, wi-fi, VPN</p>	Paper 1
LO9	Understand features of common internet services and be able to give examples of their use	<p>Sources of services: internet service provider (ISP)</p> <p>Services: worldwide web, email, news groups, forums, chatrooms, instant messaging, search engines, filter software</p> <p>Uses: e-commerce, advertising, news, education, entertainment, communication, socialising, customer support, software distribution</p>	Paper 1
LO10	Understand the facilities and services available on an intranet	<p>Intranet: network of computers within a single organisation</p> <p>Facilities and services: company wide, noticeboards, central repository for information such as staff directory, forms</p>	Paper 1

Impact of ICT			Assessed in
Code	Learning outcome	Content	
LO11	Understand the impact of ICT on individuals, organisations and society	<p>Impact on individuals</p> <p>Positive effects: flexible/mobile working, better access to information and services, new job opportunities, new skills requirements, new ways of learning, wider range of entertainment and leisure opportunities</p> <p>Negative effects: potential job losses, less social interaction, reduced physical activity</p> <p>Impact on organisations: improved communication, access to global markets, changes in the way information is managed and used, security issues</p> <p>Impact on society: social and moral effects of unrestricted internet access, widening gap between information rich and information poor</p>	Paper 1
LO12	Understand legal issues relating to use/misuse of ICT and the constraints placed on individuals	<p>Legal issues: data protection, computer crime, fraud, copyright</p>	Paper 1
LO13	Know about legal constraints on the use of information	<p>Constraints: use of personal data, music downloads, acknowledgement of sources, avoiding plagiarism, getting permission</p>	Paper 1

Use ICT Systems			Assessed in
Code	Learning outcome	Content	
LO14	Be able to select and use interface features and system facilities effectively to meet needs	Interface features: desktop, windows, dialogues box, menu, sub-menu, toolbar, scrollbar, drag and drop, zoom, minimise, maximise System facilities: template, wizard	Paper 2
LO15	Be able to manage files and folder structures to enable efficient information retrieval	Files: create, open, save, save as, print, close, delete, view, move/copy, name appropriately Folders: create folders and sub-folders, name appropriately	Papers 1 and 2
LO16	Understand the need to create a safe working environment	Health issues: ergonomic furniture, adjustable seating, appropriate lighting, taking breaks, wrist rests and other devices Safety issues: arrangement of hardware and cables, avoid hazards	Paper 1
LO17	Understand potential risks to data and personal information	Risks: accidental deletion, deliberate damage, for example viruses, unauthorised access	Paper 1
LO18	Understand methods available to secure data and personal information	Data security: create backups, keep copies safe, keep password/PIN secret, regularly change password Virus protection: use virus-checking software, treat files from unknown sources with caution Prevention of unauthorised access: for example firewalls, encryption, adware, spyware	Paper 1
LO19	Understand the need to stay safe and respect others when using ICT-based communication	Staying safe: avoid inappropriate disclosure of personal information/disclosure to unauthenticated sources, avoid misuse of images, use appropriate language, respect confidentiality, use copy lists with discrimination, use social networking sites with caution	Paper 1

Find and Select Information			Assessed in
Code	Learning outcome	Content	
LO20	Be able to select and use appropriate sources of ICT-based and other forms of information which match requirements	ICT-based: CDs, DVDs, text messages, podcasts, web logs, web-based reference sites Others: newspapers, books, images, maps, conversations	Papers 1 and 2
LO21	Be able to select information that matches requirements from a variety of sources and evaluate fitness for purpose	Fitness for purpose: recognise intention and authority of provider, currency of the information, relevance, bias	Papers 1 and 2
LO22	Be able to use appropriate search techniques and queries to locate and select relevant information	Techniques: multiple search criteria, quotation marks, search within results, relational operators, logical operators, 'find' or search tool including wildcards	Papers 1 and 2

Develop, Present and Communicate Information			Assessed in
Code	Learning outcome	Content	
LO23	Be able to select and use software applications to meet needs and solve problems	Software applications: word processing, spreadsheet, database, graphics, web authoring, presentation, audio and video editing software	Papers 1 and 2
LO24	Be able to enter, organise, develop, refine and format information, applying editing techniques to meet needs	Organise: structure of information, document layout, headings, sub-headings, lists, tables, use of templates Edit: highlight, drag and drop, find, replace, undo, redo, templates	Paper 2
LO25	Be able to use appropriate page layout	Layout: columns, margins, header, footer, portrait, landscape, page breaks, page numbering	Paper 2
LO26	Be able to enter and format text and tables to maximise clarity and enhance presentation	Format text: bullets, numbering, sub-numbering, alignment, tabs, line spacing, colour, font, style, size, tables Format tables: horizontal and vertical text alignment, merge and split cells, gridlines, borders, shading	Paper 2
LO27	Be able to obtain, insert, size, crop, alter and position images	Images: clipart, photographs, scanned images, borders	Paper 2
LO28	Be able to enter, format, develop and analyse numerical information	Data types: text, number Format: currency, %, number of decimal places, date, time, text wrap, row height, column width, gridlines, merged cells, cell borders Formulae: single operator, formulae with multiple operators, absolute and relative cell referencing Functions: SUM, AVG, IF THEN Additional features: linked tables, macros Graphs and charts: pie chart, bar chart, single line graph, scattergram, appropriate format, titles, axis labels, legends	Paper 2

Develop, Present and Communicate Information (continued)			Assessed in
Code	Learning outcome	Content	
LO29	Be able to enter, organise and sort structured information	<p>Data types: logical/Boolean, alphanumeric/text, numeric (real and integer), date</p> <p>Structure: record, field, table, table, primary key/key field, related tables</p> <p>Validation: range check, presence check, type check, length check</p> <p>Sort: single field, multiple fields, ascending/descending order</p> <p>Input: tables, forms</p> <p>Search: single criterion, multiple criteria, search within results, relational operators, logical operators</p> <p>Output: report, mail merge documents</p>	Paper 2
LO30	Be able to bring together and organise different types of information to achieve a purpose	<p>Types of information: image, chart, text alignment, captions</p> <p>Organise: text wrap, use of text boxes, behind, in front, grouping, animation, slide transition</p> <p>Purpose: poster, newsletter, web page, leaflet, multi-media presentation</p>	Paper 2
LO31	Be able to work accurately and proofread, using software facilities where appropriate for the task	<p>Software facilities: spellcheck, grammar check, print preview</p>	Paper 2
LO32	Be able to produce information that is fit for purpose and audience using accepted layouts and conventions as appropriate	<p>Layouts: letter, memo, report, newsletter, leaflet, poster, web page, information sheet, multimedia presentation</p> <p>Conventions: salutation, complimentary close on letters, page numbers, headers and footers on reports, columns, date, issue number on newsletters</p>	Paper 2
LO33	Know how to create, access, read and respond to email and other ICT-based communication	<p>Email: open, read, reply, forward, to, cc, bcc, add and open attachments</p>	Paper 2
LO34	Be able to evaluate the effectiveness of solutions	<p>Effectiveness: assessing fitness for purpose, suggesting improvements</p>	Papers 1 and 2

Assessment

Assessment summary

Paper 1 is externally assessed through a written one-hour and 30-minute examination paper.

Paper 2 is externally assessed through a three-hour practical examination paper (including printing time).

Summary of table of assessment

Paper 1: Written paper	Paper code: 4IT0/01
<ul style="list-style-type: none"> • Written paper lasting one hour 30 minutes, set and marked by Edexcel • Single tier of entry • The total number of marks available is 100. 	
Paper 2: Practical paper	Paper code: 4IT0/02
<ul style="list-style-type: none"> • Practical paper lasting three hours (including printing time), set and marked by Edexcel • Single tier of entry • One-week examination window in May • The total number of marks available is 100. 	

Assessment Objectives and weightings

	% in IGCSE
AO1: Knowledge and understanding <ul style="list-style-type: none"> • students should be able to demonstrate knowledge and understanding of the specification content 	20–40%
AO2: Application <ul style="list-style-type: none"> • students should be able to apply their knowledge, skills and understanding of ICT to a range of situations to solve problems 	40–60%
AO3: Evaluation students should be able to: <ul style="list-style-type: none"> • reflect critically on the way they and others use, create or develop ICT systems • discuss and review the impact of ICT applications in the wider world. 	20–30%
TOTAL	100%

Relationship of Assessment Objectives to Papers for IGCSE

Paper number	Assessment Objective			Total for AO1, AO2 and AO3
	AO1	AO2	AO3	
Paper 1	20–30%	10–20%	10–15%	50%
Paper 2	0–10%	30–40%	5–15%	50%
Total for IGCSE	20–40%	40–60%	20–30%	100%

Entering your students for assessment

Student entry

Details of how to enter students for this qualification can be found in Edexcel's *International Information Manual*, copies of which (in CD format) are sent to all active Edexcel centres. The information can also be found on Edexcel's international website:
www.edexcel-international.org/sfc/academic/infomanual

Combinations of entry

There are no forbidden combinations.

Access arrangements and special requirements

Edexcel's policy on access arrangements and special considerations for GCE, GCSE, IGCSE, and Entry Level qualifications aims to enhance access to the qualifications for students with disabilities and other difficulties without compromising the assessment of skills, knowledge, understanding or competence.

Please see the Edexcel website (www.edexcel.com/sfc) for:

- the Joint Council for Qualifications (JCQ) policy *Access Arrangements and Special Considerations, Regulations and Guidance Relating to Students who are Eligible for Adjustments in Examinations*
- the forms to submit for requests for access arrangements and special considerations
- dates for submission of the forms.

Requests for access arrangements and special considerations must be addressed to:

Special Requirements
 Edexcel
 One90 High Holborn
 London WC1V 7BH

Assessing your students

The first assessment opportunity for Paper 1 and Paper 2 of this qualification will take place in the June 2011 series and in each following June series for the lifetime of the specification.

Your student assessment opportunities

Paper	June 2011	June 2012	June 2013	June 2014
Paper 1: Written paper	✓	✓	✓	✓
Paper 2: Practical paper	✓	✓	✓	✓

Awarding and reporting

The grading, awarding and certification of this qualification will follow the processes outlined in the current GCSE/GCE Code of Practice for courses starting in September 2009, which is published by the Qualifications and Curriculum Authority (QCA). The IGCSE qualification will be graded and certificated on an eight-grade scale from A* to G.

Students whose level of achievement is below the minimum standard for Grade G will receive an unclassified U. Where unclassified is received it will not be recorded on the certificate.

The first certification opportunity for the Edexcel IGCSE in ICT will be 2011.

Students whose level of achievement is below the minimum judged by Edexcel to be of sufficient standard to be recorded on a certificate will receive an unclassified U result.

Language of assessment

Assessment of this specification will be available in English only. Assessment materials will be published in English only and all work submitted for examination and moderation must be produced in English.

Malpractice and plagiarism

For up-to-date advice on malpractice and plagiarism, please refer to the JCQ's *Suspected Malpractice in Examinations: Policies and Procedures* document on the JCQ website www.jcq.org.uk.

Student recruitment

Edexcel's access policy concerning recruitment to our qualifications is that:

- they must be available to anyone who is capable of reaching the required standard
- they must be free from barriers that restrict access and progression
- equal opportunities exist for all students.

Progression

This qualification supports progression to:

- Edexcel AS GCE and Advanced GCE in Applied ICT
- Edexcel Level 3 BTEC Nationals for IT Practitioners.

Grade descriptions

The following grade descriptions indicate the level of attainment characteristic of the given grade at IGCSE. They give a general indication of the required learning outcomes at each specified grade. The descriptions should be interpreted in relation to the content outlined in the specification; 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.

Grade A

Candidates can:

- show good knowledge and understanding of the range and scope of information processing and communication applications, and of the techniques and systems, including software and hardware sub-systems, needed to support them
- use ICT terms and definitions appropriately and are able to contrast and compare related ideas
- apply general principles of information processing to given situations and abstract general principles from given examples
- identify a range of needs and opportunities, carry out systematic analysis, and design and evaluate effective ways of using information and communication systems
- evaluate information sources, software packages and computer models, analysing the situations for which they were developed and assessing their efficiency, appropriateness and ease of use
- use complex lines of enquiry to find and select information, employing a wide range of sources
- explore, develop and interpret information to carry out a range of tasks and produce effective working solutions to a range of problems
- use ICT to share, exchange and present work, demonstrating a clear sense of audience and purpose
- reflect critically on their use of ICT and show understanding of the effects of its use in the wider world.

Grade C

Candidates can:

- show some knowledge and understanding of the range and scope of information processing and communication applications, and the techniques and systems, including software and hardware sub-systems, needed to support them
- show a good understanding of basic ICT terms and definitions and are able to contrast and compare related ideas
- identify needs and opportunities and analyse, design and evaluate appropriate ways of addressing these using information and communication systems
- use complex lines of enquiry to find and select information from a wide range of sources
- explore, develop and interpret information to carry out a range of tasks and produce appropriate solutions to problems
- show awareness of efficiency and economy in developing, testing and refining sets of instructions to automate processes and make things happen, including responding to external events
- use ICT to share, exchange and present work, demonstrating a consideration of audience and purpose
- show awareness of the need to detect the loss or corruption of information and to prevent the abuse of personal information
- reflect critically on their use of ICT and consider the effects of its use in the wider world.

Grade F

Candidates can:

- show basic knowledge of familiar, simple information processing and communication applications, and of the techniques and systems needed to support them
- show knowledge of some basic ICT terms and definitions
- respond to needs and opportunities and evaluate ways of addressing these using information and communication systems
- understand the need for precision in framing questions when finding, selecting and collecting information
- use ICT to explore, develop and interpret information
- use ICT to share, exchange and present work and demonstrate how it contributes to the development of their ideas
- reflect on their use of ICT and show some knowledge of its use in the wider world.

Support and training

Edexcel support services

Edexcel has a wide range of support services to help you implement this qualification successfully.

ResultsPlus — ResultsPlus is an application launched by Edexcel to help subject teachers, senior management teams, and students by providing detailed analysis of examination performance. Reports that compare performance between subjects, classes, your centre and similar centres can be generated in ‘one-click’. Skills maps that show performance according to the specification topic being tested are available for some subjects. For further information about which subjects will be analysed through ResultsPlus, and for information on how to access and use the service, please visit www.edexcel.com/resultsplus.

Ask the Expert — Ask the Expert is a new service, launched in 2007, that provides direct email access to senior subject specialists who will be able to answer any questions you might have about this or any other specification. All of our specialists are senior examiners, moderators or verifiers and they will answer your email personally. You can read a biography for all of them and learn more about this unique service on our website at www.edexcel.com/asktheexpert.

Ask Edexcel — Ask Edexcel is Edexcel’s online question and answer service. You can access it at www.edexcel.com/ask or by going to the main website and selecting the Ask Edexcel menu item on the left.

The service allows you to search through a database of thousands of questions and answers on everything Edexcel offers. If you don’t find an answer to your question, you can choose to submit it straight to us. One of our customer services team will log your query, find an answer and send it to you. They’ll also consider adding it to the database if appropriate. This way the volume of helpful information that can be accessed via the service is growing all the time.

Examzone — The Examzone site is aimed at students sitting external examinations and gives information on revision, advice from examiners and guidance on results, including re-marking, re-sitting and progression opportunities. Further services for students — many of which will also be of interest to parents — will be available in the near future. Links to this site can be found on the main homepage at www.examzone.co.uk.

Training

A programme of professional development and training courses, covering various aspects of the specification and examination, will be arranged by Edexcel. Full details can be obtained from our website: www.edexcel.com.

Appendices

Appendix 1: Glossary	21
Appendix 2: Example Instructions for the Conduct of the Examination (ICE) document	23

Appendix 1: Glossary

Below is a list of terms and abbreviations used in the subject content.

CD	Compact Disc
DVD	Digital Versatile Disc
IP address	Internet Protocol address
ISP	Internet Service Provider
LAN	Local Area Network
OCR	Optical Character Recognition
OMR	Optical Mark Recognition
PC	Personal Computer
PIN	Personal Identification Number
RAM	Random Access Memory
ROM	Read-Only Memory
VPN	Virtual Private Network
WAN	Wide Area Network
WEP	Wired Equivalent Privacy
WPA	Wi-Fi Protected Access
WWW	Worldwide web

Appendix 2: Example Instructions for the Conduct of the Examination (ICE) document



Edexcel IGCSE

Information and Communication Technology (ICT) (4IT0)

Instructions for the Conduct of the Examination (ICE)

This document covers the requirements for the following paper for the **forthcoming examination** series:

4IT0/02

EXAMINATION SECURITY

Due to the nature of this examination, it is necessary to release confidential material to centre staff prior to the examination window. It is therefore essential that centre staff read the instructions for the conduct of the examination before releasing ANY material to candidates, to ensure that the integrity of the examination is not inadvertently breached.

CONTENTS

1. Key dates

2. General instructions for 4IT0/02

Time allowed

3. The form of the paper

4. General administration of the examination

Before the examination

During the examination

Instructions for labelling

Printing

After the examination

Candidates with special requirements

5. Contingency planning

6. Misconduct

7. Coversheet

8. Secure data files

1 KEY DATES

Secure data files	Released to centres in last week in April	These must only be issued to candidates at the start of the examination
Examination window	See examination timetable for relevant series	

2 GENERAL INSTRUCTIONS for 4IT0/02

- 2.1 This examination is offered within a window. Centres may stagger these examinations during this window.
- 2.2 There are no specified start times for these examinations. It is permissible to timetable a number of different groups of candidates back-to-back on the same day.
- 2.3 Centres should use the window to ensure that all groups are of a manageable size bearing in mind the facilities available. It is recommended that the ratio of candidates to printers is no more than 10:1.
- 2.4 Centres **MUST** produce a schedule showing the date and time of the examination session to be held within the window. Examinations can only be taken within this window. This schedule must be submitted in writing to Compliance and Quality Services at Edexcel, One90 High Holborn, London, England, WC1V 7BH at least **three weeks** before the window begins. Any alteration to this agreed schedule must be confirmed in writing to the Compliance and Quality Services Team.
- 2.5 There will be one attendance register for the entire cohort. This must be completed once the last examination session has been held. Where more than one examination session is held, centres must keep an accurate record of candidates present at each session.
- 2.6 Candidates may sit the examination only once in any examination series.
- 2.7 No information relating to the content of this examination should be published, unless authorised by Edexcel. Candidates **or** centres discussing the contents of the secure data files during the examination period may risk disqualification.

Time allowed

- 2.8 The examination is three hours **inclusive of printing and collating**.
- 2.9 No extra time can be allowed for slow machines or networks which run slowly. It is the responsibility of the centre to ensure that appropriate hardware and software are available to candidates.
- 2.10 If unforeseen technical difficulties occur, the centre may use its discretion on extending the time limit for candidates.

3 THE FORM OF THE PAPER

- 3.1 The examination is computer-based.
- 3.2 The examination paper consists of a number of activities, with **NO** choice of questions.
- 3.3 Candidates must work through the activities in the sequence set, and continue working on each activity until they cannot progress any further. At that point, they should check that they cannot do later tasks within the activity and then move on to the next activity.
- 3.4 Candidates' work will take the form of printouts. These will constitute the candidates' answers. Each printout must bear the candidate's name and number and the centre number. This information **MUST** be entered **BEFORE PRINTING**. Handwritten details are **NOT** acceptable. See the separate section on labelling. Any printout not clearly identified as instructed will not be marked.
- 3.5 All printouts must be collected together in the correct order (task order within activity order). Printouts must be punched in the top left corner, printed side up, starting with the first task of the first activity. A coversheet will be supplied by Edexcel. This will be an A3 sheet folded once. Printouts should be secured, face up, to the inside left page of the coversheet (page number 2) using a treasury tag. Hole punches and treasury tags must be available for candidates' use.
- 3.6 There is no limit to the number of times candidates can print, although only final versions of candidates' printouts should be submitted.
- 3.7 Printouts must **NOT** be submitted in plastic wallets.
- 3.8 Other forms of output for example computer files must **NOT** be submitted.

4 GENERAL ADMINISTRATION OF THE EXAMINATION

- 4.1 The normal procedures relating to practical examinations will apply and every effort must be made to ensure the confidentiality of the paper (see JCQ *Instructions for Conducting Examinations*).

Before the examination

- 4.2 A desktop computer must be made available to each candidate on a 1:1 basis. The computer must be capable of running the appropriate software related to the unit ie:
- art/imaging and graphics software
 - spreadsheet software
 - word processing software
 - database software
 - multi-media/presentation software.
- 4.3 Centres should ensure that the software available to candidates will allow them to meet the requirements of the examination.
- 4.4 Centres must set up a separate user area (on computers or servers used by candidates) for each candidate sitting the examination. These user areas must **not** be accessible to candidates at any time other than during the examination time/session itself.
- 4.5 The secure data files required for the unit will be made available on the Edexcel website (www.edexcel-international.org/home).
- 4.6 Centres must ensure that data files are in a format accessible to each candidate. The files should be downloaded, tested for compatibility with the software to be used by candidates and then copied into candidates' secure examination user areas. If necessary the secure data files may be converted.
- 4.7 If secure data files have to be converted, one copy of each of these files **MUST BE PRINTED FOR SUBMISSION** to the examiner with the scripts.
- 4.8 It is **not** acceptable to store secure data files in a shared area or in a central location where anyone can access them.
- 4.9 Candidates must **not** be given access to data files prior to, or at any time outside, the official time allocated to the examination.
- 4.10 Each user area must be allocated sufficient storage space to allow candidates to save their work.
- 4.11 Candidates must **not** be able to save files produced during the examination in a central location where anyone can access them.
- 4.12 Candidates must have sufficient workspace to allow them unrestricted access to the computer and to carry out non-computer activities such as checking, annotating and collating their printouts.
- 4.13 The workstations should be arranged to prevent candidates viewing each others' work.
- 4.14 Candidates may bring a dictionary, pencil and ruler with them into the examination. Candidates must **not** take copies of any other materials into the room.

- 4.15 Candidates' desktops should be 'locked down' to ensure that they can not access email, internet or intranet.
- 4.16 Candidates may not access any saved work they may have created prior to the examination.

During the examination

- 4.17 There must be one invigilator to every 15 candidates (see *JCQ Instructions for the Conduct of Examinations, paragraph 6.1*)
- 4.18 At least one invigilator should be conversant with the software and system to be used by candidates in order to deal with technical difficulties that may arise. This may be the ICT teacher. However, they should not be the sole invigilator (see *JCQ Instructions for Conducting Examinations, paragraph 6.1 – bullet points 4 and 5*). Alternatively, the ICT teacher may be on call should they be needed in the room.
- 4.19 Candidates may not bring portable storage media (for example memory sticks, CDs) in to the examination.
- 4.20 Candidates must **not** have access to pre-prepared templates or other files during the examination. However, they may use software-specific wizards.
- 4.21 Candidates may use dictionaries (English or bilingual only) during the examination.
- 4.22 Candidates are **not** allowed to refer to textbooks or centre-prepared manuals during the examination, but may use software-specific help facilities or manufacturer's computer manuals (providing these do not require internet access). Software manuals are defined as the books provided by the software manufacturer talking through the functionality of the software only.
- 4.23 Display material (for example maps, diagrams, wall charts) must be removed in accordance with *paragraph 5.4 of the Instructions for Conducting Examinations* issued by the JCQ.
- 4.24 Candidates must **not** take copies of any materials into the examination except those stipulated in 3.14 above.
- 4.25 A seating plan for each session must be kept.
- 4.26 Candidates may move from their workstation to collect their printouts from the printer.
- 4.27 Communication between candidates is **not** allowed at any time during the examination.

Instructions for labelling

- 4.28 Candidates **MUST** enter their details **on all tasks before printing** as specified in the examination paper. Handwritten details are not acceptable.

Please note: It is not acceptable to pre-print each page with candidate details and then overprint the appropriate task.

Printing

- 4.29 Printers should be in the same room as the candidates. If this is not the case another responsible person must be assigned to deliver printouts to candidates. Candidates may **not** collect printouts from another room, nor must the invigilator become involved in the collection of printouts from another room.

- 4.30 It is the responsibility of the centre to ensure correct ownership of each printout.
- 4.31 There is no requirement to print in colour. No extra credit is given to work printed in colour. However, adequate differentiation is needed on monochrome printouts (for example sectors of a pie chart are distinguishable).
- 4.32 If printouts are on continuous stationery, the pages must be separated and sprocket holes removed.
- 4.33 In the event of a printer breakdown, the centre may use its discretion on extending the time allowed.
- 4.34 It is the invigilator's responsibility to ensure that these regulations are adhered to.

After the examination

- 4.35 Centres must ensure that all candidates' work is saved and secure from unauthorised access. Centres should safeguard this work in case it needs to be reprinted. After the examination candidates' work should be copied to a storage medium and kept secure by the examination officer.
- 4.36 Final printouts should be collated, parcelled up and stored securely until the final examination session has been held and then sent to the designated examiner.
- 4.37 All other examination material, including draft copies of candidates' work, additional printouts and question papers, must be collected by the invigilator at the end of each session and stored in a secure place.
- 4.38 Any common user areas accessible to candidates must be cleared of all work saved during the examination immediately after each session.
- 4.39 Candidates' user areas should be removed at the end of the examination window or after each session if feasible. Centres must ensure that the user areas of those candidates who have already sat the examination cannot be accessed by candidates who are sitting the examination in a later session. Different passwords must be set up for each session.

Candidates with special requirements

- 4.40 In some circumstances, candidates with particular requirements may be given additional time (up to a maximum of 40 minutes) to complete the examination. In this case, the examination should be split into two parts so that candidates have a supervised rest break.
- 4.41 Centres must write to Special Requirements Department, Edexcel, One90 High Holborn, London, WC1V 7BH requesting special arrangements. Please refer to the *JCQ Regulations and Guidance Relating to Candidates who are Eligible for Adjustments in Examinations* for further information.

5 CONTINGENCY PLANNING

It is strongly recommended that:

- 5.1 Examination sessions are scheduled in such a way as to allow time at the end of the examination window to re-schedule any sessions which have had to be postponed as a result of hardware failures, or other problems encountered earlier in the week.
- 5.2 Technical help is available during the examination to deal with 'computer crashes', printer problems and other possible complications.

- 5.3 A number of 'spare' computers are available during the examination so as to allow candidates to move to another machine if necessary.
- 5.4 Alternative printing facilities are available if necessary.
- 5.5 Up-to-date virus prevention measures are in place.

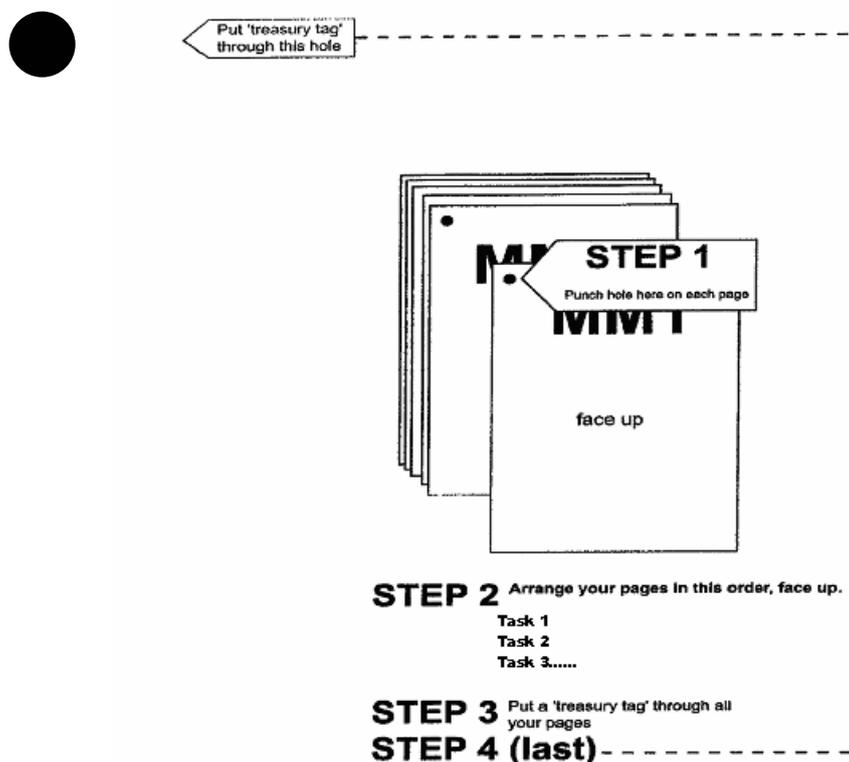
6 MISCONDUCT

- 6.1 This type of examination relies heavily on the integrity of candidates. Some centres have experienced difficulties with practical examination of this nature. There have been instances of candidates submitting work which was not their own, and of candidates submitting identical work. In those cases where misconduct occurs, or is thought to have occurred, this will be investigated and candidates may have their result withheld.

7 COVERSHEET

- 7.1 At the end of each examination, candidates are required to collate their printouts in activity number order and put them inside the coversheet provided. When more than one printout is required for a particular activity they should be placed in the order in which they are requested in the examination paper.
- 7.2 The printouts and the coversheet will need to be hole punched to allow the treasury tag to be inserted.
- 7.3 Page 2 of the cover sheet will have instructions to guide candidates through this process. An example is provided below.

Example of coversheet



8 SECURE DATA FILES

- 8.1 The **secure** examination data files will be released in the last week of April. They will be available from the IGCSE ICT area of the Edexcel website (www.edexcel-international.org/home). You will need to ensure that you have your Edexcel Online password to access these files.
- 8.2 The secure data files will **only** be accessible on the Edexcel website to registered Edexcel Online users at authorised centres. If you are not registered for Edexcel Online, details can be found on the main Edexcel website.
- 8.3 The secure data files must only be made available to candidates at the beginning of the scheduled examination.
- 8.4 The secure data files will be supplied in either Office 2000 or Office 2003 format. Should a centre wish to use alternative software a list of instructions on how to create the data files is available on request to the Edexcel Call Centre (+44 (0) 1204770696). This request must be made at least three weeks prior to the secure data files release date. It is the centre's responsibility to ensure that the software used contains similar facilities to Office 2000.
- 8.5 Secure data files will generally be supplied in comma delimited text files (.txt). Other data may be included in the form of word processed documents, these will be supplied in both Microsoft Word and PDF format.
- 8.6 Secure data files are released to centres before the examination window to enable centres to load them onto the secure workspace and for **no** other purpose.
- 8.7 There is no pre-release scenario for this examination paper. A brief scenario setting the scene for the tasks is given in the examination paper itself.

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