AQA

General Certification of Secondary Education

Applied Information and Communication Technology (Double Award) 3851

3850/3 Unit 3: ICT in Society

Mark Scheme

2006 examination – June series

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Unit 3 - ICT in Society

Task One: Investigate how developments in ICT have affected Entertainment and Leisure. Present your findings in a presentation, with speaker's notes, that could be delivered to an audience. (52 Marks)

The presentation must be focussed on the effects of ICT developments on the identified types of groups and/or individuals, rather than technologies.

Candidate describes groups and/or individuals affected by ICT systems **(9 marks)**
A1   Identify 3 groups (1 mark for each, up to 3 marks)
Candidates are required simply to identify any three types of groups/individuals who will be affected by developments in ICT related to Entertainment and Leisure. There is no need for any details of the groups; simply naming the group is sufficient to achieve the marks.   A group can be any collection of individuals with a common characteristic or interest. By the nature of the group, some individuals will be excluded. Candidates may identify either groups or individuals, but these must be specific types – for example 'adults' is too vague, but 'disabled adults' would be acceptable. It is likely that candidates will have identified groups related to the topic, so cinema-goers, 'Film Makers', 'Sound Engineers', 'Music Producers', 'DJs', 'Sports Players', 'Teenagers', 'Families' 'Leisure Centre Staff', 'Gamblers' are likely to be common. Groups which will not be credited include gaming, leisure centres   1 mark is awarded for each of three acceptable types of group/individual identified.
A2   Description of 3 groups (1 mark for each, up to 3 marks)
Candidates are required to describe the groups/individuals they have identified above – for example, what are the particular needs of the members of the group. This might include details of their involvement in Entertainment and Leisure, relationships to other members of the groups, etc.
A3   Relate groups to ICT use (1 mark for each, up to 3 marks)
This is an extension of the description above which refers specifically to the ICT needs of the groups/individuals identified. Candidates should identify what specific needs they have for ICT in relation to Entertainment and Leisure.   This must be in more detail and not just a 'list' of equipment.

Candidate considers consequences of lack of access to ICT and benefits available through use of ICT **(10 marks)**

B1   Consequences of lack of access to ICT (1 mark for each, up to 5 marks)

Candidates must identify the consequences to their identified groups or individuals of not having any access to ICT. It is important that responses relate to the lack of ICT, rather than disadvantages of having ICT. Answers might relate to issues about graphics in the film industry, computerised ticket sales, the sound/music industry, sports recording/judging, specific identified databases of information, and the difficulty in managing these without the use of ICT. Candidates must relate their answer to the groups they have identified in A1.

Candidates must demonstrate their awareness of the fact that large numbers of people do not have any access to ICT at all.

1 mark may be awarded for identification of a consequence with very brief detail, or up to 3 marks for a very detailed and reasoned discussion of one consequence. It is likely that the third mark will only be awarded for an exceptionally detailed and considered response. Candidates may be awarded 5 marks for brief details of five consequences.

B2   Benefits of use of ICT (1 mark for each, up to 5 marks)

Candidates should identify benefits of the use of ICT by the groups or individuals identified. Responses must relate to the use of ICT in connection with Entertainment and Leisure.

1 mark may be awarded for identification of a benefit with very brief detail, or up to 3 marks for a very detailed and reasoned discussion of one benefit. It is likely that the third mark will only be awarded for an exceptionally detailed and considered response. Candidates may be awarded 5 marks for brief details of five benefits.

Candidate's work is effective and appropriate to needs of audience, and is produced using fully the software features available **(6 marks)**

C1   Identify audience (1 mark)

1 mark may be awarded if the candidate has explicitly identified an audience for the presentation. The may be identified either in the speakers' notes or on one of the slides. The audience should be specific, so 'adults' is not acceptable, but 'those attending a meeting of a professional association' would be acceptable. Many candidates will have produced a presentation for their peer group, which is acceptable.

C2   Format appropriate for audience (1 mark)

1 mark may be awarded if the content, format and appearance of the slides are considered by the examiner to be appropriate for the identified audience. Examiners should consider backgrounds and fonts used, animations, and tone and language of text in making this judgement.

C3	Use of software features (1 mark for each, up to 4 marks)

Candidates should be awarded 1 mark for use of each software features. These include

- text
- a background
- inserting clip-art/photograph/graph/hyperlink/WordArt/button
- use of animation or transition (annotation acceptable)
- creation of flowchart or similar diagram
- timing
- headers and footers/other amendments to the master page

but other features are acceptable.

Use of these features should be appropriate to the context. Marks are not awarded for aesthetics.

Candidate work includes evidence of use of ICT to search for and organise information **(6 marks)**
D1   Use of ICT to search for information (up to 3 marks)

Candidates should demonstrate that they have used ICT as a tool for researching information. This is likely to be done through a screen print of an Internet search engine or similar search feature on a CD-ROM or other software. Marks should be awarded as follows:

- 1 mark for evidence, such as a screen print, of the use of a search feature
- 1 mark for appropriate search criteria, which must have been entered into the correct field and must be related to the content of the presentation
- 1 mark for evidence of the use of some information generated from the search or one of its hyperlinks.

D2   Use of ICT to organise information (up to 3 marks)

Candidates should demonstrate that they have on three occasions organised information within their presentation or their speakers' notes using different ICT tools on each occasion. These may be:

- a pie chart or graph
- an organisation chart
- a flow chart
- an ICT-generated diagram
- a table
- bullet points

but other types of organisation are acceptable.

The information organised must relate both to the identified groups or individuals and the context of Entertainment and Leisure.

Candidate demonstrates depth of knowledge of effects of ICT developments on the chosen groups and/or individuals **(5 marks)**
E1   Depth of knowledge (up to 5 marks)
Candidates must demonstrate that they have detailed knowledge of the **effects** of ICT developments related to Entertainment and Leisure on their identified groups/individuals. This may either be by providing detailed information on two or three areas, or additional information on a larger number of aspects. Marks may not be awarded in this section for non-contextualised additional detailed information.

It is unlikely that any one piece of information will be awarded more than 2 marks. |

Candidate makes informed suggestions how ICT developments will affect chosen groups and/or individuals, based on knowledge of effects of ICT developments **(7 marks)**
F1   Basic details of future effects on each of the 3 groups (1 mark per group, up to 3 marks)
Candidates must consider the current use of ICT by the identified groups in relation to Entertainment and Leisure, and use that consideration to predict what is likely to happen in the future. Suggestions should be realistic, and based on current situation as described in the presentation. Only basic descriptions are required at this level. 1 mark for comments on each group.
F2   Detailed/contextualised/justified details of future effects (up to 4 marks)
Candidates must produce extended/more detailed contextualised descriptions of future effects. Up to 2 marks per group available for more details, or well thought-out comments specifically contextualised to a particular identified type of group or individual.

Candidate evaluates own work and details validated sources of information. Candidate recognises and explores ethical and moral implications of access, or lack of access, to ICT **(9 marks)**

G1   Evaluation of work (3 marks)

3 marks for a detailed evaluation of the presentation. Comments made should not be trivial or simplistic. Comments must be evaluative rather than simply descriptive. Comments must relate to the purposes of the presentation and its relation to its specified audience.

Marks are likely to be awarded as follows:

- 1 mark for strengths
- 1 mark for weaknesses
- 1 mark for suggested improvements

However, any of these may be awarded up to 2 marks for a very detailed and well thought-out response, up to a maximum of 3.

If no audience has been named in C1 then G1 marks cannot be awarded, however, if the audience has been named in C1, but is not deemed creditworthy, G1 marks can be considered.

G2   Sources of information (2 marks)

1 mark for each type of appropriate source of information used.

Sources are likely to be:

- web sites
- CD-ROMS
- books
- magazines/periodicals/leaflets
- television documentaries/video
- interviews/visits/questionnaires

but others are acceptable.

Search engines are not acceptable.

G3   One source validated (1 mark)

1 mark if one the sources listed has been checked appropriately.

G4   Ethical and moral implications (3 marks)

Candidates must discuss ethical and moral implications of the use of ICT related to Entertainment and Leisure. Issues raised may include

- Copyright, Designs and Patents Act (1989)
- redundancy and lack of employment
- data protection-type issues
- lack of privacy
- software piracy/theft

but other ideas are acceptable.

Responses must relate to Entertainment and Leisure, but do not need to be related specifically to one of the identified groups.

Task Two: Investigate technology related to Personal Communications and its effect on society. Present your findings in a report. (30 Marks)

Candidates' reports must focus on technologies which relate to, or are used for, personal communications. Candidates must identify three technologies at the start of the report, and then base the rest of the report on those technologies. It is a requirement that the report relates specifically to Personal Communications.

Candidate produces a basic description of three technologies available to access and exchange information and carry out transactions **(8 marks)**

H1   Identify 3 technologies (1 mark for each, up to 3 marks)

1 mark for each of three technologies listed which relate to working Personal Communications. Technologies may include:
- Mobile phones/telephone
- Smart phones
- Internet
- E-mail
- WAP
- SMS
- Video conferencing/webcam
- Instant messaging
- Minicom
- VOIP

but other appropriate technologies are acceptable.

The requirement for this mark is simply a list of 3 technologies – no detail is needed.

Faxes, pagers, laptops, PDAs and MP3 players are not acceptable.

H2   Basic description of 3 technologies (1 mark for each, up to 3 marks)

Candidates' responses must relate to the 3 technologies identified above. 1 mark for each of 3 descriptions describing what technology is/does.

H3   More details on 1 or more of the technologies (1 mark for each, up to 2 marks)

Responses must relate to the technologies identified by the candidate. 1 mark for each more detailed description which extends the description above with more contextualisation and detail.

Candidates will only be able to attain the marks for the more detailed description if they have produced the basic description for H2.

More detailed description, including main purposes of technologies available, giving advantages and disadvantages, using ICT to search, select and organise information **(8 marks)**
I1   Purposes of 2 technologies (1 mark for each, up to 2 marks)
1 mark for each description of how up to 2 of the technologies listed above relate to, or are used for, Personal Communications.
I2   Advantages of 2 technologies (1 mark for each, up to 2 marks)
Responses must relate to the technologies listed above. 1 mark for each specific identified advantage which identifies how the technology is an advantage to Personal Communications.
I3   Disadvantages of 2 technologies (1 mark for each, up to 2 marks)
Responses must relate to the technologies listed above. 1 mark for each specific identified advantage which identifies how the technology creates a disadvantage to Personal Communications.
I4   Use of ICT to search or select information (1 mark)
Candidates must demonstrate that they have used ICT as a tool for researching information. This is likely to be done using a screen print of an Internet search engine or similar search feature on a CD-ROM or other software. Marks should be awarded for a screen print which demonstrates that a search engine has been used with appropriate search criteria. Screen prints which do not identify appropriate search criteria will be awarded no marks.
I5   Use of ICT to organise information (1 mark)
Candidates must demonstrate that they have organised information within their report using an ICT tool. This may be: • a pie chart or graph • an organisation chart • a flow chart • an ICT-generated diagram • a table but other appropriate types of organisation are acceptable. The information organised must relate both to the identified groups or individuals and the context of personal communications.

Candidate identifies trends over time based on detailed descriptions of purposes, advantages and disadvantages **(6 marks)**
J1   Identify 3 trends (1 mark for each, up to 3 marks)
Candidates must identify simplistically three trends over time related to the use of their identified technologies for Personal Communications. 1 mark for each trend identified, no significant detail needed.
J2   More detail of trends (1 mark for each, up to 3 marks)
Candidates must provide more detailed or contextualised descriptions to the trends they have identified above. 1 mark for each trend.

Candidate produces well-structured description, including List of Sources of information, with each source evaluated and validated **(8 marks)**
K1   Well-structured report (up to 3 marks)
Candidates' reports must be well-structured to accepted conventions. Marks may be awarded for: • introduction and conclusion paragraphs which relate the content to the context • appropriate use of paragraph/section headings • appropriate use of bullets/numbering
K2   List of range of sources (up to 2 marks)
1 mark for each type of appropriate source of information used. Sources are likely to be: • web sites • CD-ROMs • books • magazines/periodicals/leaflets • interviews/visits/questionnaires but others are acceptable.
K3   Sources specifically related to content of report (1 mark)
1 mark if candidate has identified which specific piece of information was obtained from which source. Source and information must be related to Personal Communications.
K4   Validation of one source (1 mark)
1 mark if one of the sources listed has been checked appropriately.
K5   Evaluation of at least one source (1 mark)
1 mark if candidate has commented on the usefulness or effectiveness of one of the sources, in terms of its contribution to the report content.

Task Three: Investigate the purposes of ICT legislation. Present your findings as a newsletter or brochure for employees of a large organisation. (18 Marks)

Candidates are required to produce a document which could be given to employees of a large organisation. The document should 'look' like a newsletter or brochure, rather than a word processed essay. The bulk of the marks, however, are for content rather than appearance.

Candidate produces a description of the main purposes of legislation covering working with, and using, ICT **(4 marks)**

L1	Simple descriptions of main purposes of four pieces of legislation (1 mark for each, up to 4 marks)

1 mark for each description the purpose of **four** pieces of legislation related to the use of ICT. These might include

- Data Protection Act
- Computer Misuse Act
- Regulation of Investigatory Powers Act
- Copyright Designs and Patents Act
- Health and Safety At Work Act/Health and Safety Regulations

but other appropriate legislation is acceptable.

Candidates must include correct name of Act, but date is not required. Descriptions may be very simplistic for this mark.

If candidate has included more than four pieces of legislation, the best (i.e. worthy of most marks) four should be marked.

Candidate produces a more detailed description, which includes an explanation of implications for users of implementing the legislation **(7 marks)**

M1	More detailed descriptions of main purposes of the legislation (1 mark each, up to 4 marks)

1 additional mark for each of the four pieces of legislation for the inclusion of more detail in the description.

M2	Implications for users explained (1 mark for each, up to 3 marks)

1 mark for each of **three** statements relating the legislations to an effect on a specified user, whether an end-user, manager or technician.

These marks may be awarded even where the candidate has failed to score the M1 marks.

Candidate produces a detailed and well-structured description which includes details of the sources of information, and validates those as part of a detailed evaluation of the work **(7 marks)**

N1   Well-structured description (up to 2 marks)
1 mark to be awarded if the document 'looks like' a brochure or newsletter, rather than simply word processed text. It should be fit for the identified purpose for which it is intended. 1 mark for any of the following: • use of appropriate side headings, or section headings • appropriate use of bullets and/or numbering for ease of reading • appropriate introduction and conclusion paragraphs
N2   Details of sources (1 mark)
1 mark for identification of at least two **types** of sources which have been used in the preparation of the document.
N3   One source validated (1 mark)
1 mark if one the sources listed has been checked appropriately.
N4   Detailed evaluation of work (3 marks)
3 marks for a detailed evaluation of the newsletter or brochure. Candidates' comments made should not be trivial or simplistic. Comments must be evaluative rather than simply descriptive. Marks are likely to be awarded as follows: • 1 mark for strengths • 1 mark for weaknesses • 1 marks for suggested improvements However, any of these may be awarded up to 2 marks for a very detailed and well thought-out response, up to a maximum of 3.