AQA

ASSESSMENT and
QUALIFICATIONS
ALLIANCE

General Certificate of Education

Information and Communication Technology 2520

Unit 2   Living in the Digital World

Report on the Examination

2009 examination – June series

General Comments

Centres are reminded to read this report in conjunction with the section in the specification where the expectations of candidates performing at grade A and E is described (Appendix A, pages 33 to 35).

Question 1

Many candidates scored full marks by listing 4 characteristics of a user that the designer of an interface should consider; others chose to discuss 2 characteristics and explained how the interface should be changed to accommodate them. Both approaches were credited.

Some candidates did not read the question properly and discussed the characteristics of interfaces.

Question 2

The best candidates explained what ICT can provide such as the ability to store vast amounts of data, fast repetitive processing, improved communication or wider access to information, supported with an explanation or examples. Some candidates simply stated how it could be provided by giving lists of very specific examples of ICT uses and failed to gain credit.

Question 3

Many candidates revealed that they do not understand the need for standards, but had learned that two different types of standards have emerged and proceeded to discuss de jure and de facto standards, which did not gain credit. Others responded in the context of maintaining quality/confidentiality of data/information and quoted data protection legislation.

The best candidates appreciated that standards allowed dissimilar devices or different software to exchange data successfully and discussed a number of examples such as 'PDF' for exchanging data between different software packages or 'USB' for transferring data between different devices.

Question 4

The question required 'forms' of data (numeric, text, graphical image or sound) to be described, rather that data types (integer, real, currency, string, Boolean). The full range of marks was awarded for this question.

Question 5(a)

This question required candidates to apply their knowledge of backup and recovery to a continuous e-commerce operation. Few candidates related their answers to the context of the question.

Most candidates were able to collect some marks on this question by discussing backup strategies including: the type of backup, the frequency of backup, the timing of backup (e.g. at midnight), the choice of medium, the location of the backup and the personnel responsible for backups. Credit was awarded for discussing techniques such as disk mirroring and RAID.

Rarely did answers include the recovery of data and the need to complete recovery quickly to ensure continuity of service.

Question 5(b)

Three types of processing were acceptable (Transaction (or pseudo real-time), Interactive and Batch) and the best answers discussed how these types of processing could be useful in e-commerce.   Batch Processing was acceptable, because an e-commerce organisation would still have a payroll run or the need to print out address labels for mail-shots.

Weaker candidates did not answer in the context of e-commerce and merely explained what was meant by each of the processing types and couldn't gain good marks for their answers.

Question 5(c)

E-commerce covers a wide spectrum of business on-line, such as on-line booking and banking. The meaning of society was taken in its widest sense when awarding credit.

Implications of e-commerce such as: reduced travel costs, reduced pollution, loss of social interaction, a sedentary life-style, increased opportunity for crimes such as credit card fraud or identity theft, all gained credit.

Question 6(a)

Many candidates were able to distinguish between malpractice and crime. Some candidates incorrectly claimed that malpractice is accidental and crime is deliberate. The most popular examples of malpractice were leaving a computer workstation logged on while away from the desk and personal use of ICT facilities while at work.

Question 6(b)

Measures to protect ICT systems were required, rather than systems of identifying the culprits after the event (such as CCTV) or restoring ICT systems after a loss (such as backup and recovery). For full marks it was necessary to describe at least one measure in each of the categories, but candidates frequently confused the different categories often listing virus checking as an example of all three. The best answers described some of the following measures.

Hardware measures:
- Biometric scanners (finger-print, voice recognition, retina scan) restricting access to ICT systems;
- Securing hardware (with cables and locks) to the desk to prevent theft;
- The use of swipe cards to log-on to ICT systems.

Software measures:
- Passwords / user-names to prevent unauthorised access to ICT systems;
- Installation of anti-virus software to protect against the damage to data caused by a virus;
- Installation of a firewall to protect against access by external hackers;
- Installation of anti-spyware to prevent theft of data by key-loggers, etc.

Procedural measures:
- Regular scanning for viruses;
- Enforcing the changing of passwords regularly (once a month);
- Signing of a code of practice and training in this.

Question 7

In general, the standard of English was poor and the use of technical language sometimes inaccurate. Candidates should be reminded that their quality of written communication is an integral part of the assessment of the answer to this question.

Centres are reminded that the instructions to candidates on the front cover of the examination paper stated that 'Question 7 should be answered in continuous prose. In this question you will be marked on your ability to: use good English, organise information clearly and use specialist vocabulary where appropriate'.

Candidates unsurprisingly demonstrated a detailed knowledge of social networking sites. Most explored a balance of benefits and drawbacks of using sites such as MySpace, Facebook and Bebo.

The best answers discussed some of the following issues under each factor:

Socialising
- Loss of social interaction
- Lack of face-to-face conversational skills
- Life-style changes – people staying at home a lot more
- Keeping in touch with friends and family who live abroad
- Finding long lost friends
- Building up a large number of 'friends' on-line rather than having a small number of close friends
- Consequence of using social networks: e.g. loss of social skills, personal life-style changes, sedentary lifestyle ...
- Wider circle of friends you don't know very well
- Organising class reunions
- Internet dating
- Instant messaging – 400 friends know what you are doing today

Personal Data: How people put too many personal details on social networking sites, leading to:
- Invasions of privacy
- Nuisance
- Potential employers 'vetting' employees
- DPA covers the storage and use of personal details by organisations, but people often (unwittingly) put too much detail on their social networking pages
- Not add someone if they appear suspicious
- Credit card details
- Identity theft/theft of information

Ethical:
- How youngsters can become prey to paedophiles
- Cyber-bullying
- Children viewing unsuitable images on social networking sites or using links on social networking sites
- On sites in work time
- Pretending to be 15 actually 45
- Post incorrect/inaccurate information
- What is acceptable in one country is not in another

Cultural – using social networking site to share information about:
- Lifestyles in different countries
- Arts/ fashions
- Religious beliefs
- Traditions
- Teen culture (chatting on the social networking sites rather than meeting face-to-face)
- Cyberspace socialising
- Digital divide
- Lack interview skills / face to face / poor body language.

Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the Results Statistics page of the AQA Website.