



External Assessment Report 2009

Subject	Computing Studies
Level	Standard Grade

The statistics used in this report are pre-appeal.

This report provides information on the performance of candidates which it is hoped will be useful to teachers/lecturers in their preparation of candidates for future examinations. It is intended to be constructive and informative and to promote better understanding. It would be helpful to read this report in conjunction with the published question papers and marking instructions for the Examination.

Comments on candidate performance

General comments

The 2009 Question Papers were of a similar standard to previous years and candidates' responses showed a slight improvement in the quality and length of answers, especially at Credit level. However, where candidates were asked to justify or explain their answers, many still failed to give sufficient depth. Many candidates simply respond 'quicker', 'easier' 'cheaper'. These responses will not gain marks unless the candidate justifies why it is quicker, easier or cheaper.

This Question Papers produced results closer to the desired 70% and 50% grade boundaries making the standard of the papers comparable to previous years

There was a greater increase to Practical Abilities grades at Credit and General levels and a decrease at Foundation level.

Areas in which candidates performed well

Credit

Question 1(d) (ii) - nearly all candidates correctly stated that this type of file was portable and could be used in many different packages.

Question 2 (c) - many candidates stated correctly that she was not correct and stated the Data Protection Act as the law she had broken.

Question 4 (a) - nearly all identified that high level languages needed to be translated into machine code/binary/0s and 1s.

Question 4 (c) - most candidates correctly identified which statements were related to a **compiler** and/or an **interpreter**.

Question 5(d) (i) - almost all knew that to crop a photograph was the **removal** of some part of the image.

Question 5(d) (ii) - almost all knew that to scale a photograph was **to reduce its size**.

Question 5(e) - the calculation from kilobytes to bits was well done by most of the candidates.

Question 6(c) – nearly all candidates identified the computer as either a mainframe or supercomputer.

Question 7(a) – almost all identified two data types related to the database fields.

Question 7(d) – most knew that a computed field contained some form of calculation or a formula.

Question 8(b)(i) – many clearly stated two good arguments for the investment in new automated systems.

General

Question 1(b) (ii) – most candidates correctly described how you would use the search and replace function.

Question 1(c) – nearly all identified this mistake as a grammar error.

Question 2(e) – most correctly stated that a high level language needed to be **translated** into machine code.

Question 3(a) and 3(b) were well answered by most candidates.

Question 3(e) - was well done by most candidates, stating two correct **running costs**.

Question 4(a)(i) & (ii) – was well answered by most candidates relating to hyperlinks.

Question 5(g) – nearly all identified two methods of securing data with a mixture from encryption, username/passwords and physical security.

Question 6(d) – most correctly identified two types of sensors.

Foundation

- Question 1(f) – many candidates correctly identified what the letters I, M and P stood for in WIMP.
Question 2(e) – nearly all candidates correctly inserted the four words.
Question 4(c) – most candidates put the storage terms in the correct ascending order.
Question 4(e) – nearly all correctly identified what the letters R and A in RAM stood for.
Question 4(g) – nearly all candidates correctly selected the two items relating to a DVD-ROM.
Question 4(h) – many identified the correct devices to be included in the Input/Output/Backing storage table.
Question 6(b) – most candidates correctly identified the two formatting changes.
Question 6(c) – most correctly identified two of the tools used to create the graphic.
Question 6(d) - many candidates correctly identified what the letters H and I stood for in HCI.
Question 6(f) - many candidates correctly identified what the letters L and A stood for in LAN.

Areas which candidates found demanding

Credit

- Question 1(a) (i) – very few candidates stated a type of **transmission media**, e.g. telephone line, fibre cable, satellite and chose wireless, or simply cable which were not acceptable.
Question 2(b) (ii) – many candidates are still not getting the steps correct when sending out letters to many people; creating a **standard letter** (many are still confusing this with a standard paragraph), insert **placeholders/spaces** for personal details, and create a **database/datafile**.
Question 3(b) – poorly done by some candidates as they did not relate the answer to the spreadsheet in the question.
Question 3(c) – some candidates did not read the questions properly and gave answers relating to cost. Also some related the answer to printer quality rather than quality of printing (dpi) or printer speed rather than speed of printing (ppm).
Question 4(b) – poor descriptions by some candidates of the features of a high level language.
Question 4(d) – very poorly done by most candidates as they do not know examples of systems software.
Question 6(b) – not many candidates identified this as a **length check** or **double entry**, many answered this as validation.
Question 6(d)(i) – very poorly done by most candidates with some answers including pen drive, floppy disk, etc..
Question 7(c) (ii) – poorly done with candidates not knowing the meaning of a complex search, i.e. **searching on more than one field** or **two or more conditions**.
Question 8(a)(i) – many candidates do not know two standard methods of guiding robots using **light guidance** and **magnetic guidance**.
Questions 8 (a) (ii) – many do not know the advantages of either of the methods used in part (i).
Question 8(b) (ii) – very few candidates know about intelligent robots, i.e. that they have powerful processors, large memory/backing storage, a wide variety of sensors (not just one), etc.

General

- Question 2(c) – very few candidates could state that the type of main memory used to hold programs while they are edited was **RAM**, many suggested ROM.
Question 2(g) – many candidates had difficulty in stating two reasons for using wireless networks, e.g. range of signal, no trailing leads, etc.
Question 3(f) – most candidates did not know two disadvantages of working from home over working in an office.
Question 4(c) – knowing which of the three given examples was the correct search criteria was extremely badly done by most candidates.
Question 5(b) – not many candidates knew that **wordwrap** was the answer to this question.
Question 7(b) (i) – few candidates knew of an advantage of using bar codes.
Question 7(b) (ii) – very few knew the purpose of a check digit.

Foundation:

Question 1(c) – many candidates found difficulty in identifying an advantage and a disadvantage of an integrated package over a stand-alone package.

Question 1(d)(i) – less than half the candidates knew how to shorten the formula using the **SUM** function.

Question 1(e) – less than a third of candidates knew how to **add** a row to a spreadsheet or where to **add** it in the table.

Question 3(f) – very few candidates knew that a modem is required to send information electronically.

Question 4(a) – many candidates did not attempt to put any arrows on this diagram showing the flow of data in a **standard block diagram** of a computer system.

Question 4(d)(i) & (ii) – less than half the candidates still do not know that there are **8 bits in a byte** and **1024 bytes in a kilobyte**.

Question 6(e) – many candidates do not know two advantages of using a network, e.g. sharing files, peripherals, e-mail, etc.

Advice to centres for preparation of future candidates

Credit

Emphasise to candidates that Credit answers should be answered fully. The new layout does not indicate that General level descriptions are all that is required.

Candidates should not use brand names when describing solutions. Word processing software is a way of preparing text documents; answers like ‘MS Word, AppleWorks, will not be accepted.

Candidates are using the term ‘memory’ when they should be using ‘storage capacity’. Centres need to stress the use of ‘memory’ is not acceptable when describing how much data can be stored on a CD-ROM disc or DVD-ROM disc at Credit level. E.g. a DVD-ROM has a **storage capacity** of 4.7 Gb, rather than a DVD-ROM has a large memory.

General

Several candidates give answers like faster, cheaper, more efficient, without detailing what is faster, etc. Candidates should attempt all questions, even if the layout is slightly unfamiliar.

Foundation

Candidates still leave gaps when a tick or a guess could get a mark. Candidates should be advised to attempt all questions.

Many candidates still fail to read the question carefully at this level. Candidates often mistake what is required for terms like name, describe, state etc. and also, when **two** ticks are required a number of candidates only ticked **one** box.

Statistical information: update on Courses

Number of resulted entries in 2008	15383
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Number of resulted entries in 2009	13586
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Statistical Information: Performance of candidates

Distribution of overall awards

Grade 1	24.7%
Grade 2	24.7%
Grade 3	20.0%
Grade 4	17.4%
Grade 5	10.6%
Grade 6	1.4%
Grade 7	0.1%
No award	1.2%

Grade boundaries for each assessable element in the subject included in the report

Assessable Element	Credit Max Mark	Grade Boundaries		General Max Mark	Grade Boundaries		Foundation Max Mark	Grade Boundaries	
		1	2		3	4		5	6
KU	36	23	17	36	21	17	36	21	17
PS	36	25	18	36	24	18	36	24	16