Computing (958)

OVERALL PERFORMANCE

The number of candidates for this subject was 430. The percentage of candidates who obtained a full pass was 71.40%, an increase of 3.22% compared with the previous year.

The achievement of candidates for this subject according to grades is as follows:

Grade	A	A–	B+	B	B–	C+	C	C–	D+	D	F
Percentage	5.81	4.19	6.57	13.72	12.10	14.18	14.89	7.9	6.98	6.28	7.44

RESPONSES OF CANDIDATES

PAPER 958/1 (COMPUTING)

General comments

In general, candidates were not able to answer the questions on application of ICT. They were not able to draw the flow charts correctly and to understand the C programs.

Comments on individual questions

Question 1

The question was about five generations of programming languages. Most candidates were able to answer the 1st, 2nd, 3rd and 5th generations of programming languages correctly. Some candidates described the computer generations, i.e. vacuum tube, transistor, integrated circuit, microprocessor and artificial intelligent, instead of the programming languages generations.

Question 2

In part (*a*), most candidates were not able to explain the meaning of "file backup" correctly, although the answered given showed that they understood the term.

In part (*b*), most candidates answered that the backup file was kept at a different hard disk but in the same chassis.

In part (*c*), most candidates were able to answer quiet well. However, some candidates gave the media of size less than 2MB such as a diskette.

Question 3

This question was well answered by most candidates.

Question 4

In part (*a*), most candidates were able to trace the output. However, they were not able to rewrite the loop using do…while. Most of them forgot to declare and initialise index " *i* " and they did not know how to use "*do-while*" correctly.

Question 5

The common weakness of candidates was that they were unable to draw the correct flow charts logically and used the right flowchart symbols such as conditional, write and process symbols. Furthermore, most candidates gave three flow charts instead of one flow chart.

Question 6

Those candidates who really understood the precedence of operators +, –, ||, >= and > were able to answer this question correctly. However, some candidates wrongly used the symbols of 0 (false) and 1 (true), instead they used 1 for false and 0 for true.

Question 7

It was quite easy for candidates to know the correct answer for this question as they just needed to sort, in ascending order, for the given numbers (elements) of the array. Very few candidates were able to answer this question correctly by showing the result of each pass of bubble sort method. Most candidates just gave a few steps and then jumped to the final sorted numbers.

Question 8

In part (*a*), most candidates were able to answer correctly.

In part (*b*), very few candidates were able to answer the cache memory. Some of the wrong answers given by candidates were ROM, DRAM *etc.*

In part (*c*), many candidates were not able to answer correctly.

Question 9

In parts (*a*) and (*b*), although quite a number of candidates were able to answer correctly, most candidates were not able to write the code segment in C correctly in part (*c*) using the "if-then-else" and "for loop" statements. They lacked the understanding that the three parts were related.

Question 10

Most candidates were able to answer this question correctly, but some were not able to correctly sketch the diagram that shows the equipment needed at both ends (i.e. the sender and the receiver) and the communication line.

PAPER 958/2 (COMPUTING)

General comments

In general, candidates were not able to obtain full marks for questions relating to MIDI files, E-R diagrams, limitations of traditional file-based system, SQL statements and analysis phase of system development.

Comments on individual questions

Question 1

The majority of candidates wrongly understood that virtual reality (VR) as merely multimedia presentations. Candidates were expected to relate VR by using multimedia elements of imaginary, sound, and animation. They were also expected to mention that VR requires special devices to interact with it. Not many candidates were able to give the correct examples of VR applications.

Possible answers include: *virtual reality is simulated by a computer, the simulated environment can be similar to the real world, virtual reality is an extension of multimedia that uses multimedia element of imagery, sound and animation that requires instrumented feedback for interaction in a high-performance computer generated life-like immersive 3D environment.*

Question 2

Candidates failed to clearly state the advantages and disadvantages of MIDI files. The possible advantages include: it uses small file size, quicker loading, playing of files when embedded in web-pages, have high quality sound, easy to be edited or manipulated. The disadvantages include: the accuracy of sound playback depends on the MIDI playback device, not easily used for playback of spoken dialog, not all types of equipment can support MIDI.

Question 3

Most candidates described the feature of a Web browser. They associated a Web browser with a Web service such as the search engine, email service provider etc. They even wrong examples of the Web browser such as hotmail, Yahoo and Google. Nonetheless, some candidates were able to answer the question correctly. Acceptable answers are: *a Web browser is a piece of software that provides a user with the capability to view all the information on the Web and to access Web-based services and applications, it provides a user with the capability to interact with HTML documents, access files and software related to those documents;* the examples are: *Microsoft Internet Explorer, Netscape Navigator, Mozilla Firefox, Google Chrome, Apple Safari etc*

Question 4

This question was presented in a new style such that it was easier for candidates to understand the question. Thus, it was the best answered question. However, there were candidates who confused the analysis stage with the planning stage of the system development especially that involved users of the system.

Question 5

Candidates failed to understand that the traditional file-based system was still dealt with in a computer-based record management system. Many candidates associated the traditional file-based system with the paper-based system. Therefore, they had given the wrong limitations of the traditional file-based system.

Question 6

This question was fairly well answered by candidates. We believed that this was due to the fact that younger generation fancies multimedia technology such as digital camera and things that associates with it such as bitmapped and vector graphics.

Question 7

Candidates were able to differentiate between DSS, TPS, and MIS. However, many candidates liked to reuse the key words of the given application system such as *Decision support System (DSS) is a system that supports managers to make decision.* This shows either candidates had limited English vocabulary knowledge or they had no idea of what to answer, and therefore they simply reused the same keywords to manipulate the answer.

Question 8

This question was well answered by the majority of candidates. It was one of the best answered questions. However, they were few candidates who wrongly related the types of data operation to the database management.

Question 9

Candidates failed to answer this question well, even though SQL was a very popular question that had been asked repeatedly for a number of years. Candidates seemed not to even get the correct key (library) word for *Querying the information*. For example: SELECT FROM WHERE was not appropriately given by candidates.

In part (*c*), it was a kind of a new way of asking the SQL statements question. Candidates were expected to know that the WHERE part of the SQL query should have been derived from the joint tables of EMPLOYEE and SKILL rather than just from a single table like what the previous year questions normally asked.

Question 10

This question was not well answered, even though E-R diagram or conceptual design (like question No. 9) was one of the popular questions that has been asked repeatedly for a number of years. Many candidates still drew the E-R design separately (binary by binary entities) and failed to integrate them into one logical construct.