Mark Scheme - GCSE Computing - Mock Exam A451

Qn	Answer	Marks
1 a	 Ali's new computer uses a single-user, multi- tasking operating system. What is a single-user operating system? Only one user can use the computer <u>at any given time</u> 	2
1 b	What is a multi-tasking operating system? The computer can (appear to) run several programs (1) at the same time (1). A Suitable example (e.g. word processing while playing music) (1) Max 2.	2
2	 e.g. Immediately available so the shopkeeper can start using it straightaway Tried and tested and so less likely to have errors No development costs as this has already been borne by the developer More support available many other users who can provide help/third party help books, help lines or web sites available (marks in pairs) 	4
3 a	 Antivirus Scans the computer <u>periodically</u> To check if any software has been installed which contains code that may harm the computer Removes/quarantines these programs / notifies the user Prevents these programs from being installed Protects the computer by preventing important files (e.g. the boot sector or operating system) from being changed 	2
3 b	 Disk defragmenter Moves (parts of) of files around so that all parts of a file are stored together (allowing files to be accessed more quickly) Free space is collected together (allowing large files to be saved easily) 	2

Qn		Marks		
4 a	E.g. Provides inter computer/De Provides a p Manages pe Manages me	2		
4 b	Utility Antivirus Defragmenter File transfer Firewall	Used for security ✓	Used for disk organisation ✓ ✓	4
4 c	 The source of The custome The custome the same licence/restr 	2		
5	Ali wants to know which utility programs he will need to keep his computer secure and running smoothly. Discuss the utility programs Ali will need, justifying why he needs them. 0 = No response or response not worthy of credit. Level 1 (0-2 marks) Some relevant utilities are listed with limited justification or reference to security and smooth running. There is limited use of specialist terms. Answers may be ambiguous or disorganised. Errors of spelling, punctuation and grammar may be intrusive. Level 2 (3-4 marks) The candidate partially covers both security and smooth running or over emphasises one of these; correct utilities are identified supported by limited facts. Specialist terms are used in the most part correctly. The information will be presented for the most part in a structured format. There are occasional errors in spelling, punctuation and grammar.			

5 cont	Level 3 (5-6 marks)	6
	The candidate has identified utilities for both security and smooth running, with a full justification of why they are	-
	needed. Specialist terms are consistently used	
	appropriately and correctly. The information will be	
	presented in a structured format. The candidate can	
	demonstrate the accurate use of spelling, punctuation and grammar.	
	Indicative content:	
	Security	
	 Antivirus/Anti-spyware – regularly checks 	
	computer for programs designed to harm the system / gather information and deletes /	
	disables them – such software is easily acquired	
	from the Internet and could result in significant	
	damage / financial loss / identity theft etc if not removed.	
	 Firewall – controls access to the computer 	
	through the network to prevent hackers	
	 Definitions need to be updated regularly– 	
	because new viruses and spyware programs are produced all the time.	
	 Keep computer running smoothly: 	
	Disk maintenance	
	 Defragmenting - reorganise files so that they are 	
	stored in blocks next to each other – because file	
	access quicker and may free up space	
	 Disk cleanup - search for and delete files which are no longer needed – because this frees up 	
	space which can be used for other programs	
	System maintenance	
	 System cleanup - search the computer for settings 	
	which are no longer needed – programs which are	
	slowing down the computer – because this improves performance	
	 System update - search on the Internet for updated 	
	versions of the software on the computer and	
	downloading/installing the updates – because this ensures that the computer always has the latest	
	version including any fixes for known problems /	
	security issues.	