

Mark scheme

Question		Answer/Indicative content	Marks	Guidance
1	a	1 mark for function and 1 name for task	4	BOD storage for memory in the first function.
				Peripheral: allow input and output devices by example.
				File management, do not award folder management.
				The task for peripheral management needs to extend 'manage' i.e. 'manage output devices' is NE.
				<u>Examiner's Comments</u>
				Candidates were often able to identify the function of memory management and file management for the given tasks.
				Few candidates were able to identify a task performed by peripheral management. Candidates often rephrased 'peripheral

				<p>management' for example stating that it managed the peripherals or managed the hardware without identifying what this involved. The stronger responses identified the role of device drivers to allow for communication between the computer and the peripherals.</p> <p>Candidates often gave a suitable task for the user interface, most commonly that it allowed the user to communicate with the computer or hardware.</p>
	b	<p>1 mark for each term</p> <p>encryption software changes data using a key. If the changed data is intercepted it cannot be understood. This software does not stop the data from being intercepted.</p> <p>defragmentation software analyses the data on a disk to find files that have been split and stored in separate locations. The split files are moved to be consecutive in storage and the free space is moved together. This does not provide more storage space on the disk, instead it makes the access of the data faster because the read head does not have to move as far to access the next part of the file.</p>	6	<p>Encryption Key Understood Defragmentation Consecutive Access</p> <p>Mark first answer in each space.</p> <p><u>Examiner's Comments</u></p> <p>Candidates were often able to accurately identify some of the missing words. The spaces for encryption were more often</p>

					<p>accurate, with a common error being the use of a lock to change the data instead of a key.</p> <p>Candidates often identified defragmentation accurately but the remaining spaces were more often inaccurate with access or separate often given in the next space.</p>
			Total	10	
2			<p>1 mark from:</p> <ul style="list-style-type: none"> • Performs housekeeping actions • Monitor / manage / maintain a computer system • Help the computer run smoothly/efficiently • To diagnose/fix/identify problems with a computer system 	1	<p>Do not award example on its own</p> <p><u>Examiner's Comments</u></p> <p>Some candidates gave an example of utility software and described the purpose of that software instead of utility software in general. For example, a candidate gave defragmentation, or file management as the need.</p>
			Total	1	
3	a		<p>1 mark per bullet to max 3</p> <ul style="list-style-type: none"> • Takes less time to read/access a file because the data/files/pages are contiguous 	3	

			<ul style="list-style-type: none">• so it does not need to move as far to read the next piece of data/file/page• ...because it is in the next memory location• Takes less time to save new data/files because there is larger free space together• ...so it does not need to split the data/file• ... and can store them in contiguous spaces																																
	b		<div>1 mark per row</div> <table><thead><tr><th>Action</th><th>Memory management</th><th>Peripheral management</th><th>File management</th><th>User management</th></tr></thead><tbody><tr><td>Creating a new folder to store documents in</td><td></td><td></td><td>✓</td><td></td></tr><tr><td>Moving data from Virtual Memory to RAM</td><td>✓</td><td></td><td></td><td></td></tr><tr><td>Renaming a file</td><td></td><td></td><td>✓</td><td></td></tr><tr><td>Reading data from a scanner</td><td></td><td>✓</td><td></td><td></td></tr><tr><td>Changing the password required to log on to the computer</td><td></td><td></td><td></td><td>✓</td></tr></tbody></table>	Action	Memory management	Peripheral management	File management	User management	Creating a new folder to store documents in			✓		Moving data from Virtual Memory to RAM	✓				Renaming a file			✓		Reading data from a scanner		✓			Changing the password required to log on to the computer				✓	5	No mark awarded if 2+ ticks on each row
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4	a		<ul style="list-style-type: none">• Orders have been saved onto the system as they order food and then deleted once processed (1)	4 (AO2 1b)	Up to a maximum of 4 marks. A maximum of three marks if																														

			<ul style="list-style-type: none"> Once other orders have been made, new files are created (1) which may be bigger than the spaces left by the deleted files (1) The order files are split up (1) 		there is no contextualisation. Allow a mark if candidates state that fragmentation increases access time. (1)
	b		<ul style="list-style-type: none"> Files on the hard disk drive are moved (1) Empty spaces collected together (1) Files are moved to be stored together (1) Fewer disc accesses are needed (1) 	3 (AO1 1b)	Up to a maximum of 3 marks.
			Total	7	