

Oxford Revise | OCR Computer Science | Answers

Chapter 7 Storing data

Question	Answer	Extra information	Marks	AO / Specification reference
1	Secondary storage is needed to keep a permanent copy of digital data, that would otherwise be lost when the power is switched off.	This question has 2 marks allocated to it, but only requires one reason, so a single reason is stated and then expanded to get the second mark. Only write about one reason.	1 1	AO1/AO2 1.2.2
2	Magnetic Solid state	1 mark for each correct answer. These are the other types of storage listed in the syllabus, so it's best to stick to them.	1 1	AO1 1.2.2

Question	Answer	Extra information	Marks	AO / Specification reference
3	<p>Any two advantages from:</p> <ul style="list-style-type: none"> Quieter in operation Faster access speed Uses less electricity / power Generates less heat Smaller physical size Not affected by magnetic interference More robust if dropped <p>Any two disadvantages from:</p> <ul style="list-style-type: none"> More expensive to buy per unit of storage Lost data cannot be recovered as easily Much larger storage capacities are available on HDD Number of read/write operations has a greater impact on lifespan Stored data can degrade over time 	<p>1 mark for each advantage up to a maximum of 2 and 1 mark for each disadvantage up to a maximum of 2.</p> <p>It is important that the advantages and disadvantages relate to a solid state drive compared with a hard disk drive.</p> <p>It is advisable to make sure your advantages relate to the following characteristics, with no more than one advantage or disadvantage from each characteristic:</p> <ul style="list-style-type: none"> Capacity Speed Portability Durability Reliability Cost 	<p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>AO1</p> <p>1.2.2</p>

Question	Answer	Extra information	Marks	AO / Specification reference
4	Virtual memory may be needed in a computer system to increase the size of the available RAM, using secondary storage. This can happen if the RAM isn't large enough to hold all the running programs and data. Virtual memory is used to store the parts that aren't needed, which are swapped into RAM when they are needed.	1 mark for each correct statement or expansion to a maximum of 3 marks, to explain why virtual memory may be needed in a computer system.	1 1 1	AO2 1.2.1