The questions on this worksheet have been taken from the Original OCR GCSE Computer Science Specimen Paper

6-A-Day – Computer Science GCSE (p1.3-2016)

Q1	**(b)** TCP/IP is a set of protocols based on layers. **(i)** With regards to network protocols, define what is meant by a 'layer'. .... **[1]** **(ii)** Describe **one** advantage of using layers to construct network protocols. .... **[2]**
Q2	The owners of a large bakery have a Local Area Network (LAN) with a star topology. They order their supplies over the Internet. When data is transmitted from the bakery to the supplier, network protocols are used. **(c)** Explain **four** reasons why the bakery may use a star network topology for their LAN. .... **[4]**
Q3	A doctor's surgery stores hundreds of patients' details on its computer network. The surgery is concerned about the security of its patients' sensitive medical data. **(a)** Staff are already required to use strong passwords to protect systems. Explain, with reference to system security, **three** other ways that the surgery could protect the system. .... **[6]**
Q1	

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Q4	**(b)** Identify **three** errors that the surgery's staff could make, that may endanger the security of the network and outline a procedure that could be put in place to prevent each error. .... **[6]**
Q5	A restaurant has a computer-based ordering system which is running slowly. A technician has said that the hard disc drive is fragmented. The technician has suggested using utility software to defragment the drive. **(a)** Explain how the restaurant's hard disc could have become fragmented. .... **[4]**
Q6	Explain how defragmentation software could overcome the issue of the slow computer system. .... **[3]**