

Revision Guide for A-Level Computer Science Unit 1.3.3 (SLR 1)

1.3.3 Networks

Candidates need to understand the definition and purpose of a network.	Before Revision☆☆☆☆☆ After Revision☆☆☆☆☆
Candidates need to understand the purpose of, and importance of using, protocols.	Before Revision☆☆☆☆☆ After Revision☆☆☆☆☆
Candidates should be able to discuss examples of protocols that may be used in a network/ the internet (but will not be asked to recall information about any specific protocol).	Before Revision☆☆☆☆☆ After Revision☆☆☆☆☆
Candidates should understand the term standard, and the purpose and need for standards in a network (or any situation where data is transferred).	Before Revision☆☆☆☆☆ After Revision☆☆☆☆☆
Candidates need to understand the purpose and benefits of layering protocols, particularly within the TCP/IP stack. Candidates need to know the different layers within the TCP/IP stack and the purpose of each.	Before Revision☆☆☆☆☆ After Revision☆☆☆☆☆
Candidates need to understand how data is transmitted on the Internet, the use of IP addresses and packets in the transfer of data. (NB: Candidates are not expected to be familiar with the OSI model).	Before Revision☆☆☆☆☆ After Revision☆☆☆☆☆
Candidates are expected to understand the terms LAN and WAN	Before Revision☆☆☆☆☆ After Revision☆☆☆☆☆
Candidates need to understand how the Domain Name System is used to find the IP address of a URL	Before Revision☆☆☆☆☆ After Revision☆☆☆☆☆
Candidates need to understand that there are a range of security issues and threats involved with networked computers.	Before Revision☆☆☆☆☆ After Revision☆☆☆☆☆
Candidates need to be aware of threats such as hackers, viruses, unauthorised access, denial of service, spyware, SQL injection, phishing and pharming.	Before Revision☆☆☆☆☆ After Revision☆☆☆☆☆
Candidates need to know about ways of minimising, or preventing these threats for example firewalls, secure passwords, anti-virus, anti-spyware etc.	Before Revision☆☆☆☆☆ After Revision☆☆☆☆☆
Candidates need to have knowledge of the hardware required to connect to and/or build a network (e.g. modem, router, cable, NIC, Wireless Access Points, hub, switch etc).	Before Revision☆☆☆☆☆ After Revision☆☆☆☆☆
Candidates need to understand the purpose of the hardware, but are not required to understand how they physically work.	Before Revision☆☆☆☆☆ After Revision☆☆☆☆☆
Candidates need to understand the difference between a client-server and peer-to-peer network.	Before Revision☆☆☆☆☆ After Revision☆☆☆☆☆
Candidates need to know the benefits and drawbacks of each type of network and be able to recommend one for a given scenario.	Before Revision☆☆☆☆☆ After Revision☆☆☆☆☆

Slideshow (Shared area)	PG Online Textbook	Teach-ICT	CraignDave (Youtube)
Slides 1 to 162 Read <input type="checkbox"/> Starter Activities <input type="checkbox"/> Tasks <input type="checkbox"/>	Section 5: Chapter 21 Pages 111 to 118 Read <input type="checkbox"/> Questions 1- 3 <input type="checkbox"/> Exercises P118 <input type="checkbox"/> Chapter 22 Pages 119 to 125 Read <input type="checkbox"/> Questions 1- 5 <input type="checkbox"/> Exercises P125 <input type="checkbox"/> Chapter 23 Pages 126 to 129 Read <input type="checkbox"/> Questions 1- 2 <input type="checkbox"/> Exercises P129 <input type="checkbox"/>	1.3.3 Network Characteristics - Networks Theory <input type="checkbox"/> 1.3.3 Network Characteristics – Models and Protocol Layering Theory <input type="checkbox"/> 1.3.3 Network Characteristics – The TCP/IP stack Theory <input type="checkbox"/> 1.3.3 Network Characteristics – Internet Protocols Theory <input type="checkbox"/> 1.3.3 Network Characteristics – IP Addressing Theory <input type="checkbox"/> 1.3.3 Network Characteristics – LANs, WANs, PANs, SANs, MANs Theory <input type="checkbox"/> 1.3.3 Network Characteristics – Packet & Circuit Switching Theory <input type="checkbox"/>	OCR A'Level Network characteristics & protocols Watched <input type="checkbox"/> Cornell Notes <input type="checkbox"/> OCR A'Level TCP IP, DNS & Protocol layers Watched <input type="checkbox"/> Cornell Notes <input type="checkbox"/> OCR A'Level LANs & WANs Watched <input type="checkbox"/> Cornell Notes <input type="checkbox"/> OCR A'Level Client sever & Peer to peer Watched <input type="checkbox"/> Cornell Notes <input type="checkbox"/>

	<p>Chapter 27 Pages 147 to 129 Read <input type="checkbox"/> Questions 1- 4 <input type="checkbox"/> Exercises P153 <input type="checkbox"/></p>	<p>1.3.3 Network Characteristics – Network configuration Theory <input type="checkbox"/></p> <p>1.3.3 Network Characteristics – Network Security Theory <input type="checkbox"/></p> <p>1.3.3 Network Characteristics – Network Hardware Theory <input type="checkbox"/></p>	<p>OCR A'Level Packet & circuit switching Watched <input type="checkbox"/> Cornell Notes <input type="checkbox"/></p> <p>OCR A'Level Network security threats Watched <input type="checkbox"/> Cornell Notes <input type="checkbox"/></p> <p>OCR A'Level Network hardware Watched <input type="checkbox"/> Cornell Notes <input type="checkbox"/></p>
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