BRIDGING THE GAP
Introductory Diploma
in IT
(Cyber Security)

Course Title	Examination Board & Web Address
Introductory Diploma in IT: IT Infrastructure Technician	OCR https://ocr.org.uk/qualifications/cambridge-technicals/information-technology/#level-3

Units/Topics Studied:
Fundamentals of IT, Global Information, Cyber Security, Computer Networks, Mobile Technology and Internet of Everything

Bridging Task

Part One:

Find out the answers to the following questions

1. What are the 7 layers of the OSI Model?
2. What are the differences between TCP and UDP?
3. What are Ports?
4. What is an IP address and a MAC address?
5. Explain the 5-4-3 rule?
6. What is an SSID?
7. Would you use WEP or WPA? Explain why?
8. Who invented Linux?
9. What are the three main methods of connecting devices together in a network?
10. How does a router work?

> Useful websites:
> http://compnetworking.about.com/od/basicnetworkingconcepts/
> http://en.wikipedia.org/wiki/Main_Page
> http://www.howstuffworks.com/
> http://www.netacad.com

Part Two:

Choose **ONE** of the following tasks to complete

Network Design	Interactive Poster
Produce a design for your ideal computer network. You should use existing devices and technologies and include aspects such as layout, hardware, security and connectivity. The design can be hand drawn or computer generated.	Produce an A3 Size poster explaining the similarities and differences between the OSI Model and the TCP/IP Model. Make you poster interactive, with questions, answers, hidden information etc.
Cyber Security in the News	**Legal and Ethical**
Research recent news articles and select one that is based around Cyber Security, e.g. the development of a new encryption technology, developments in security technology. Summarise the news article in your own words. Explain why you chose this article, how important the story is to humans and your opinions of future implications.	Choose one recent Cyber Security issue that has been in the media. For your chosen topic, research in depth the possible effects on people and society, with a particular emphasis on the impacts these issues can have. Areas could include stealing large databases of passwords/personal information or the methods used by government agencies such as the NCA or GCHQ. Your research should be presented as a leaflet.

The two parts will be graded Pass, Merit or Distinction. In part one we will be looking for the correct answers. In part two we will be looking for evidence of research, technical understanding and the skill of communicating ideas with others effectively. Good Luck!

Mr P. Varey