

Examiner Report	
Qualification Name	Higher Education Qualification
Qualification Level	Professional Graduate Diploma
Date/ Series	April 2024
Module	Network Information Systems
General Comments	
<p>Most students choose to answer questions from Section B and showed good understanding of the material. There were parts of the questions however, which exposed some gaps in their knowledge, and it shows general reluctance to have in-depth technical detail knowledge of the way networks work.</p>	
Question no.	comments
Q1	<p>This question asked about the relationship between the TCP/IP and ISO OSI 7-layer model in section (a) and then asked about packet bursts and the concept of a window in (b) and asked the candidate to assess time savings when packets are sent in bursts over sequential transmission and delivery in (c). The question was popular, and in general candidates asked section (a) thoroughly and to a high standard, although candidates would be well advised to consider the question being asked. The question asked about TCP/IP layer and the OSI 7 layer model was only relevant in discussion how the OSI layers corresponded. Some answers spent considerable effort on aspects of the OSI model that are not relevant to the question. Although not wrong, the time spent on irrelevant material may have impacted on time available elsewhere.</p> <p>The latter sections were answered well, although candidates had clearly chosen the question because they were well prepared for question (a) and as the question tested understanding with part (c) misunderstandings did show.</p>
Question no.	comments
Q2	<p>This question was about bridging, the address resolution protocol, and IPv4 and IPv6 addressing schemes and unicast and multicast. The concepts were inter-related but tested a breadth of knowledge and asked candidates to demonstrate understanding of those concepts in practice. The question was not popular, with very few candidates choosing to answer this question. Candidates who did answer it were often able to give good answers to parts, but left other parts blank, suggesting that the breadth of the question was</p>

	<p>challenging. However the question did cover a particular aspect in a related manner. ARP is the address resolution protocol that is used to map link layer addresses to network layer addresses. The link layer should have been identified in the first part, and the network layer addressing is IPv4 and IPv6. ARP uses broadcast addressing, whereas autoconfiguration in IPv6 uses multicast addressing. Few candidates seemed to be confident in these aspects.</p>
Question no.	comments
Q3	<p>This question was about DNS. In it candidates were mostly trying to explain the idea and purpose of DNS in a very convoluted way. Although there was rational in their explanation, it feels additional reading/explanation of the basics is needed for this question. Around half of all submitted papers attempted this question and scored relatively well, but the core rational needed to be looked for and deduced by the examiner.</p>
Question no.	comments
Q4	<p>Of the three B Section questions, this was the least understood. Candidates were struggling to pinpoint the correct answers and very often the answers were remotely relevant. It seems very few are actually familiar with the nitty-gritty of how the Internet works and what is actually happening during data exchange.</p>
Question no.	comments
Q5	<p>This question was asking basic security related questions, and I am pleased to report that almost everybody attempted it and many have scored well on it. Certainly, there was good understanding of symmetric and asymmetric encryption, but hash function was not very well understood. The weakest link in this question was probably the explanation of the way the transport layer security (TLS) uses a combination of asymmetric and symmetric encryption.</p>