**SL Unit 3** **– Networks**  
Quiz 1

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| **Question 1** | | | |
| Objectives: | 3.1.1. | Exam Reference: | May-15 2 |

Outline one example of the use of a virtual private network (VPN). [3]

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| **Question 2** | | | |
| Objectives: | 3.1.10 | Exam Reference: | May-16 12.a |

A college has a high-speed network. The network is accessible to all students and staff  
through their personal accounts.

The network may be accessed by using desktop computers available in the college. When

in the college, users can also use personal laptops to connect wirelessly or dock with an

Ethernet cable. When not in the college, users can connect via a virtual private network (VPN)

over the internet.

1. In the given context, distinguish between Ethernet and wireless in terms of **reliability**

of transmission. [4]

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| **Question 3** | | | |
| Objectives: | 3.1.15 | Exam Reference: | May-17 8 |

Explain how the use of media access control (MAC) addresses can improve security. [3]

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| **Question 4** | | | |
| Objectives: | 3.1.7 | Exam Reference: | Nov-16 8.c |

A bookstore sells books online. A customer can select a book, and then enter  
their name, address and credit card number. This data is stored on the book shop’s  
central computer in a database of customer orders.

Outline the purpose of protocols in transferring this data. [2]

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| **Question 5** | | | |
| Objectives: | 3.1.3 | Exam Reference: | May-15 9.a |

Six lawyers and one secretary work together in the same building and are connected via a  
LAN to a central server. Each has their own workstation.

Outline the concept of the Open Systems Interconnection (OSI) model in  
communication across a network. [3]