

Tutorial 2: Network Protocols and Communication

- Q1. “Before communicating with one another, individuals must use established rules or agreements to govern the conversation.” Discuss this statement. (6 marks)

- Q2 (a) When a web client makes a request to a web server, describe the interaction of protocols based on the Figure 1. (8 marks)

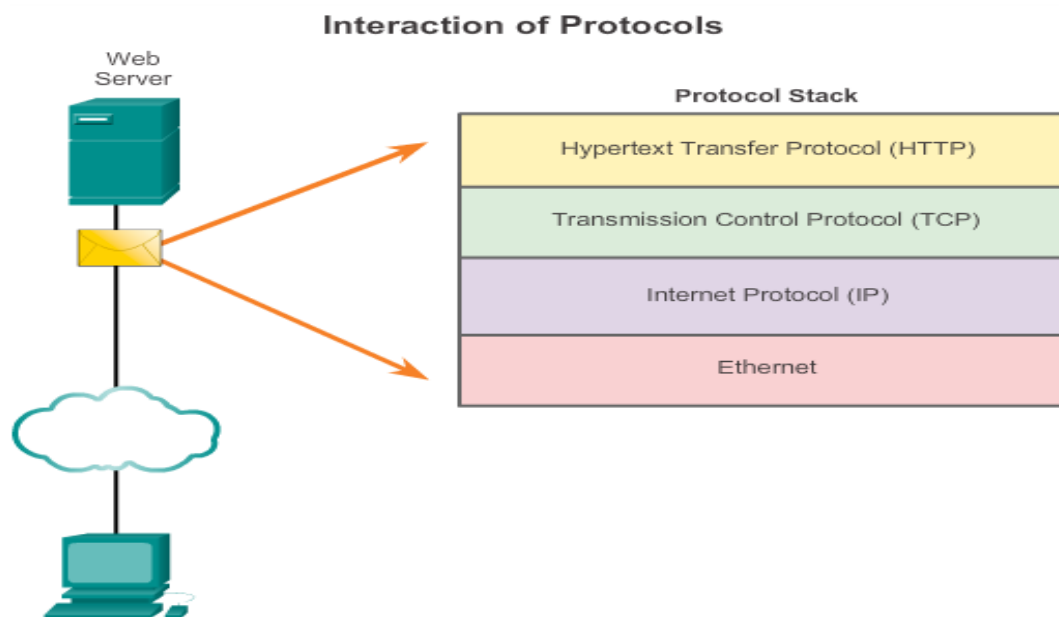


Figure 1: Interaction of Protocols

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- Q3. Open Systems Interconnection (OSI) reference model is created by International Standards Organisation (ISO) to develop standards for networks and to facilitate multivendor equipment interoperability. List the **SEVEN (7)** layers of the OSI model and also describe **ONE** function for each layer. (14 marks)

<i>Layer</i>	<i>Functions</i>

- Q4. (a) State any ONE (1) advantage and ONE (1) disadvantage of segmentation (201603 TAR UC, resit) (7 marks)

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Q5. (a) Referring to OSI model, Figure 2 shows the encapsulation of Protocol Data Unit.

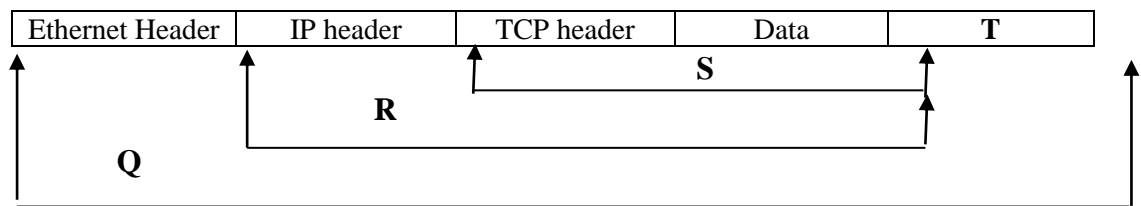


Figure 2: Encapsulation of Protocol Data Unit

(i) Identify the Protocol Data Unit labeled **Q**, **R**, and **S**: (3 marks)

Q		1 mark
R		1 mark
S		1 mark

(ii) Name the field labeled **T** and describe its function. (3 marks)

(b) “When a host needs to send a message to another host in the same network, it must use the router, also known as the default gateway.” Evaluate this statement. (4 marks)
