

## CSS322 – Quiz 7

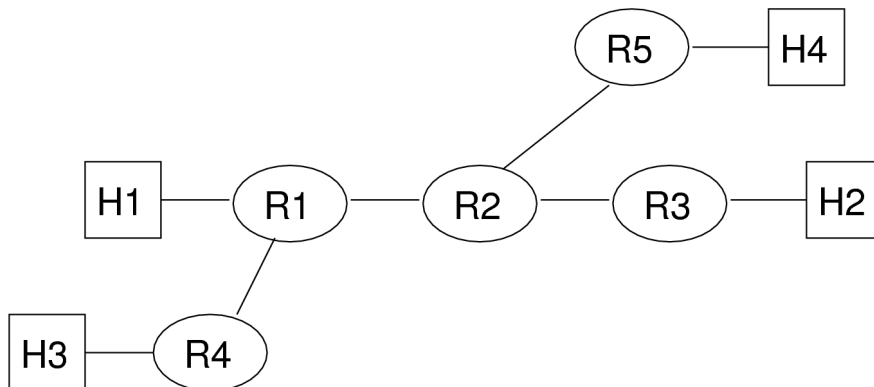
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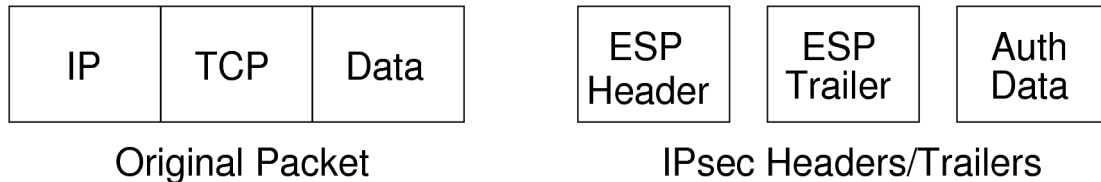
Mark: \_\_\_\_\_ (out of 6)

### Question 1 [6 marks]

Consider the IP network shown below.



A source host has an original IP packet, shown below, to send to a destination host. The figure below also shows the set of IPsec headers/trailers that are available when using Encapsulating Security Payload (ESP) with both confidentiality and authentication.



In your answers you can use the host and router names as the IP addresses. For example, the IP address of host H1 is: H1. Consider that host H1 has the original IP packet to send to H2.

- a) If ESP tunnelling mode is used from R1 to R3, draw the IP packet sent by R2. [3 marks]
  
- b) List the parts of the above packet that are encrypted. [1 mark]
  
- c) What is the source IP address in the inner header of the above packet? [1 mark]
  
- d) What is an advantage of tunnelling mode (instead of transport mode) in ESP? [1 mark]