

Tutorial Sheet

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1 Computer Networks - Week 4

1.1 Subjective Question

- 1. Why do we have domain names? What is a real-life example of a domain name? Describe how domain names are hierarchical.
- 2. Describe the server/client model. Which is your computer?
- 3. Who controls the internet?
- 4. Why is TCP/IP important? What would happen if these protocols didn't exist? Choose one layer of the protocol and explain what challenges it seeks to overcome.

1.1.1 Objective Questions

- 1. Describe the following terms:
 - a. LAN
 - b. API (covered in Week 5 Lab)
 - c. JSON (covered in Week 5 Lab)
 - d. Ethernet
- 2. Explain the concept of DNS and its role in the Internet architecture.

- 3. Explain the difference between IPv4 and IPv6. Why was there a need to move from IPv4 to IPv6?
- 4. Describe the role of routers in connecting a Local Area Network (LAN) to an Internet Service Provider (ISP).

1.1.2 Multiple Choice Questions (MCQs)

1. Which format represents an IPv6 address?

- a) XX.XX.XX.XX
- b) XXXX:XXXX:XXXX:XXXX:XXXX:XXXX:XXXX:XXXX
- c) XXX.XXX.XXX
- d) None of the above