



Protocols and Models

Chapter: CCNA Networking • Level ★★★ • Time: 30 min

SCORE

___ / 20

Name _____ Class _____ Date _____

AFTER THIS WORKSHEET YOU CAN

✓ Why protocols exist ✓ OSI 7 layers ✓ TCP/IP 4 layers ✓ Encapsulation



Section A • Concept Check

• BEGINNER

4 × 1 = 4

1

Rules for communication are:

- ☐ A. protocols ☐ B. cables ☐ C. apps
☐ D. ports

2

OSI has how many layers?

- ☐ A. 7 ☐ B. 4 ☐ C. 5 ☐ D. 9

3

The TCP/IP model has:

- ☐ A. 4 layers ☐ B. 7 layers ☐ C. 2 layers
☐ D. 10 layers

4

Wrapping data with headers down the stack is:

- ☐ A. encapsulation ☐ B. zipping
☐ C. framing only ☐ D. routing



Section B • Problem Solving

• INTERMEDIATE

2 + 3 × 3 = 11

5

OSI layer 3 is the _____ layer.

6

OSI layer 2 is the _____ link layer.

7

List OSI layers 1-7.

8

Map TCP/IP to OSI briefly.

9

Name the PDU at layers 1-4.



Section C • Challenge

• CHALLENGE

5

10

Why layered models?

🧠 Reflection — the most useful thing I learned: _____

A ___/4 B ___/11 C ___/5 Total ___/20

Teacher's Signature _____

Parent's Signature _____

🔑 ANSWER KEY — FOLD OR CUT BEFORE HANDING OUT

1-A 2-A 3-A 4-A | 5 network 6 data 7 = Physical, Data Link, Network, Transport, Session, Presentation, Application 8 = App = 5-7, Transport = 4, Internet = 3, Network Access = 1-2 9 = Bits, frames, packets, segments | 10 = Standardization, interoperability, easier troubleshooting

