BitWith Bite

CCNA NETWORKING WORKSHEET

IPv4 Addressing

Chapter: CCNA Networking · Level ★★☆ · Time: 30 min

SCORE ___ / 20

Name _____ Class _____ Date _____

AFTER THIS WORKSHEET YOU CAN

✓ Network vs host portion ✓ Subnet masks and prefix length ✓ Subnetting basics ✓ Broadcast/network addresses

Section A · Concept Check • BEGINNER 4 × 1 = 4

1 /24 means how many network bits?

◯ A. 24 ◯ B. 8 ◯ C. 32 ◯ D. 16

2 Hosts in a /24:

◯ A. 254 ◯ B. 256 ◯ C. 255 ◯ D. 512

3 The all-ones host portion is the:

◯ A. broadcast address ◯ B. network ID

◯ C. gateway ◯ D. DNS

4 192.168.10.0/26 subnets a /24 into:

◯ A. 4 subnets of 62 hosts ◯ B. 2 of 100

◯ C. 8 of 30 ◯ D. 1 of 254

Section B · Problem Solving • INTERMEDIATE 2 + 3×3 = 11

5 255.255.255.0 equals prefix /_____.

6 Usable hosts = 2^host-bits minus _____.

7 Subnet 192.168.1.0/24 into 4 - list them.

8 Host 172.16.5.10/16 - network and broadcast?

9 How many hosts in /20?

Section C · Challenge • CHALLENGE 5

10 Why did subnetting matter historically?

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 24 6 2 7 = /26: .0, .64, .128, .192 8 = 172.16.0.0 and 172.16.255.255 9 = 4094 | 10 = Efficient address use + broadcast domain control