

Name: Amuka Chisom Email: Clairechisom5@gmail.com

1. Complete the table below

IP ADDRESS	SUBNET MASK	CLASSFUL/CLASS LESS	NETWORK ADDRESS	BROADCAST ADDRESS
200.35.1.192	255.255.255.0	Classful	200.35.1.0	200.35.1.255
192.168.2.1	255.255.0.0	Classful	192.168.0.0	192.168.255.255
192.168.5.1	255.255.255.0	Classful	192.168.5.0	192.168.5.255
172.168.2.1	255.255.0.0	Classful	172.168.0.0	172.168.255.255
10.0.1.1	255.255.0.0	Classful	10.0.0.0	10.0.255.255
209.3.1.8	255.255.255.0	Classful	209.3.1.0	209.3.1.255

2. Complete the table below.

DECIMAL	BINARY
192.168.0.2	11000000.10101000.00000000.00000010
200.200.200.0	11001000.11001000.11001000.00000000
220.10.20.0	11011100.00001010.00010100.00000000
192.168.1.128	11000000.10101000.00000001.10000000

3. What is the maximum number of IP addresses that can be assign hosts on a local subnet that uses the 255.255.255.224 subnet mask?

30 IP addresses

4. In your own words explain the CIA triads.

The CIA triad in data security consists of three key attributes:

Confidentiality: Keep data private and limit access.

Integrity: Ensure data accuracy and prevent unauthorized changes.

Availability: Make data accessible when needed.

5. Describe the process of encapsulation in the OSI model.

Encapsulation in OSI Model:

Each layer adds its own header information to data as it moves down the OSI stack.

Layers include application, presentation, session, transport, network, data link, and physical.

Encapsulation ensures data integrity during transmission.

NB: The assignment should be submitted to “awololaadebayo40@gmail.com”