Assignment 02 CCN Theory

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Class Section: **A**

"On my honor, as student of University of Engineering and Technology, I have neither given nor received unauthorized assistance on this academic work."

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Month Day, Year (11 04, 2025)

Department of Computer Systems Engineering

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Question 1

Which three acronyms/initializes represent standards organizations? (Choose three.)

- **i.** **IANA**
- ii. TCP/IP
- **iii.** **IEEE**
- **iv.** **IETF**
- v. OSI
- vi. MAC

Question 2

What type of communication will send a message to all devices on a local area network?

- **i.** **Broadcast**
- ii. Multicast
- iii. Unicast
- iv. Allcast

Question 3

In computer communication, what is the purpose of message encoding?

- **i.** **To convert information to the appropriate form for transmission**
- ii. To interpret information
- iii. To break large messages into smaller frames
- iv. To negotiate correct timing for successful communication

Question 4

Which message delivery option is used when all devices need to receive the same message simultaneously?

- i. Duplex
- ii. Unicast
- iii. Multicast
- **iv.** **Broadcast**

Question 5

What are two benefits of using a layered network model? (Choose two.)

- **i.** **It assists in protocol design.**
- ii. It speeds up packet delivery.
- iii. It prevents designers from creating their own model.
- **iv.** **It prevents technology in one layer from affecting other layers.**
- v. It ensures a device at one layer can function at the next higher layer.

Question 6

What is the purpose of protocols in data communications?

    i.   Specifying the bandwidth of the channel or medium for each type of communication
    ii.   Specifying the device operating systems that will support the communication
   iii.   **Providing the rules required for a specific type of communication to occur**
    iv.   Dictating the content of the message sent during communication

Question 7

    i.   Which logical address is used for delivery of data to a remote network?
    ii.   Destination MAC address
   iii.   **Destination IP address**
    iv.   Destination port number
    v.   Source MAC address
    vi.   Source IP address

Question 8

What is the general term that is used to describe a piece of data at any layer of a networking model?

    i.   Frame
    ii.   Packet
   iii.   **Protocol data unit**
    iv.   Segment

Question 9

Which two protocols function at the internet layer? (Choose two.)

    i.   POP
    ii.   BOOTP
   iii.   **ICMP**
   iv.   **IP**
    v.   PPP

Question 10

Which layer of the OSI model defines services to segment and reassemble data for individual communications between end devices?

    i.   Application
    ii.   Presentation
    iii.   Session
   iv.   **Transport**
    v.   Network

Question 11

Which type of communication will send a message to a group of host destinations simultaneously?

i. Broadcast
ii. Multicast
iii. Unicast
iv. Anycast

Question 12

What process is used to receive transmitted data and convert it into a readable message?

i. Access control
ii. Decoding
iii. Encapsulation
iv. Flow control

Question 13

What is done to an IP packet before it is transmitted over the physical medium?

i. It is tagged with information guaranteeing reliable delivery.
ii. It is segmented into smaller individual pieces.
iii. It is encapsulated into a TCP segment.
iv. It is encapsulated in a Layer 2 frame.

Question 14

What process is used to place one message inside another message for transfer from the source to the destination?

i. Access control
ii. Decoding
iii. Encapsulation
iv. Flow control

Question 15

A web client is sending a request for a webpage to a web server. From the perspective of the client, what is the correct order of the protocol stack that is used to prepare the request for transmission?

i. HTTP, IP, TCP, Ethernet
ii. HTTP, TCP, IP, Ethernet
iii. Ethernet, TCP, IP, HTTP
iv. Ethernet, IP, TCP, HTTP