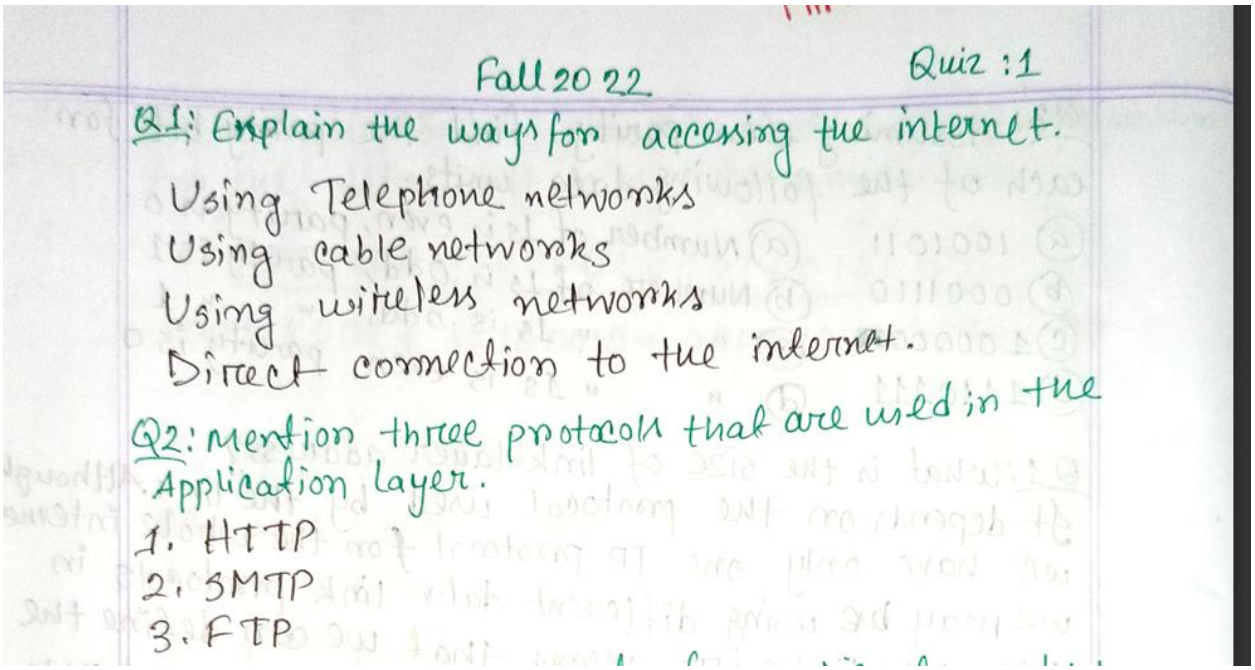
Chapter-2

Fall22 quiz



Fall 2022 Quiz :1

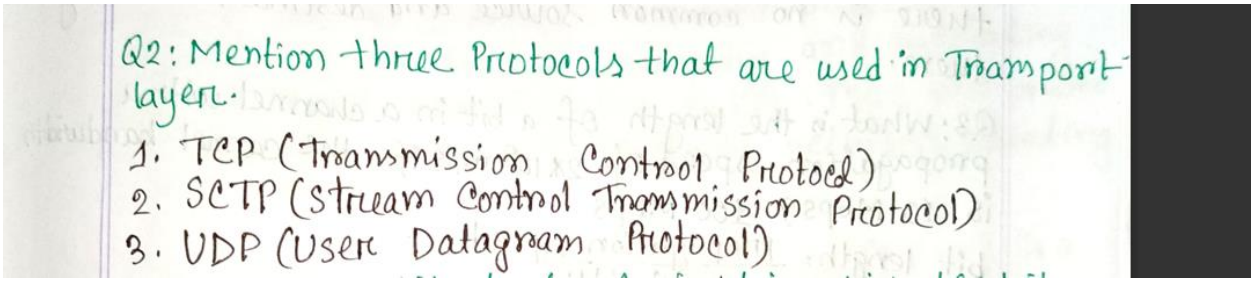
Q1: Explain the ways for accessing the internet.

Using Telephone networks
Using cable networks
Using witeless networks
Direct connection to the internet.

Q2: Mention three protocols that are used in the Application layer.

1. HTTP
2. SMTP
3. FTP

HTTP = Hypertext Transfer Protocol
SMTP = Simple Mail Transfer Protocol
FTP = File Transfer Protocol
Domain Name System (DNS)
Secure Shell (SSH)
Simple Network Man agement Protocol (SNMP)



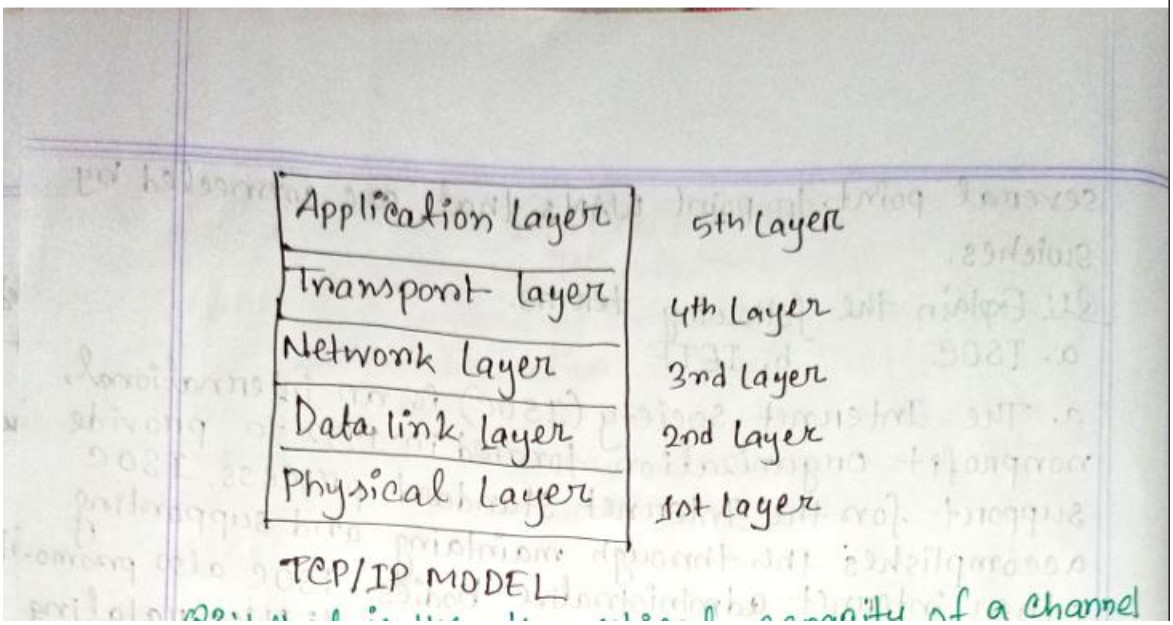
Q2: Mention three Protocols that are used in Transport layer.

1. TCP (Transmission Control Protocol)
2. SCTP (Stream Control Transmission Protocol)
3. UDP (User Datagram Protocol)

Network Layer:
Internet Control Message Protocol (ICMP)
Internet Group Management Protocol (IGMP)

Q2: Which principle of protocol layering states that to create bidirectional communication we need to make each layer so that it is also perform two opposite tasks, on in each direction? What do you understand about OSI? Draw the diagram of The TCP/IP Model.

Ans: The first principle.
OSI is a model name. Full form" Open System Interconnection."

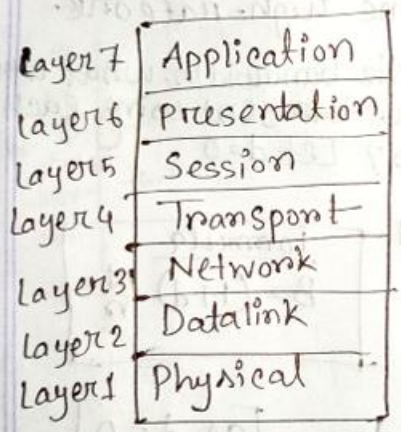


TCP/IP MODEL

Q2: Which principle of protocol layering states that two objects under each layer at both sites should be identical? What do you understand about ISO? Draw the diagram of OSI Model.

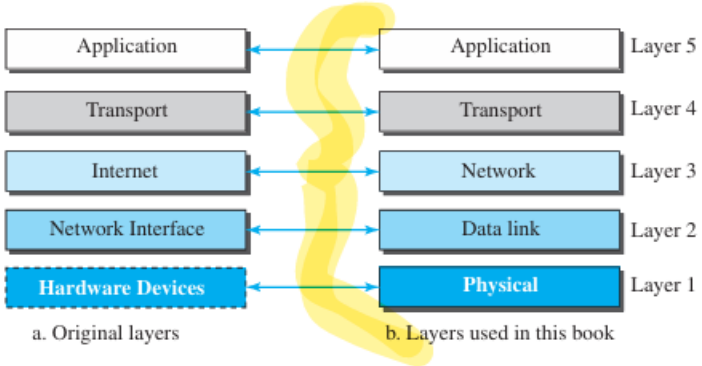
→ The second principle.

ISO is an Organization. Full form International Organization for Standardization.



The OSI Model.

Figure 2.4 *Layers in the TCP/IP protocol suite*



sequence maintain korte hobe

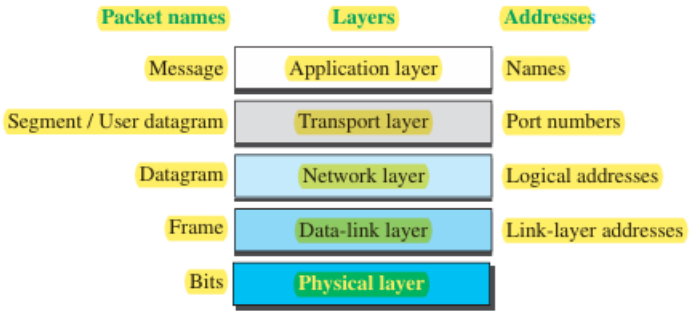
Fall21 quiz

2. A host communicates with another host using the TCP/IP protocol suite. What is the unit of data sent or received at each of the following layers? (a) Application layer (b) Network layer

(a) The unit of application layer is message.

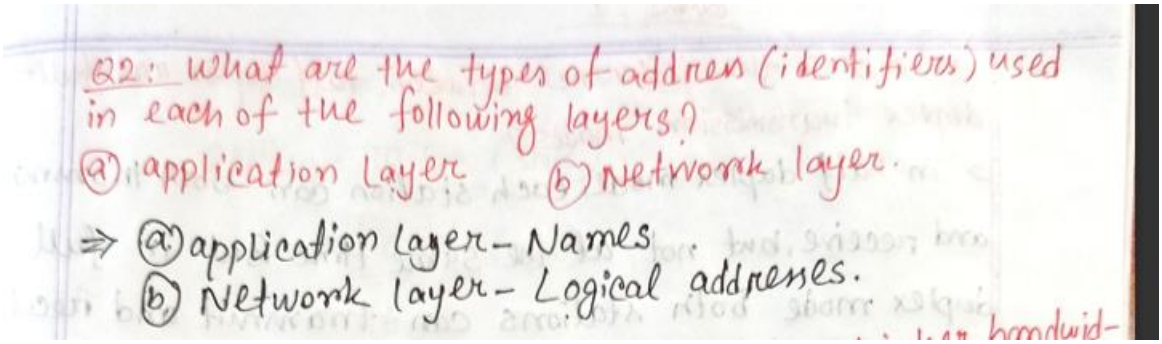
(b) The unit of Network layer is datagram.

Figure 2.9 *Addressing in the TCP/IP protocol suite*



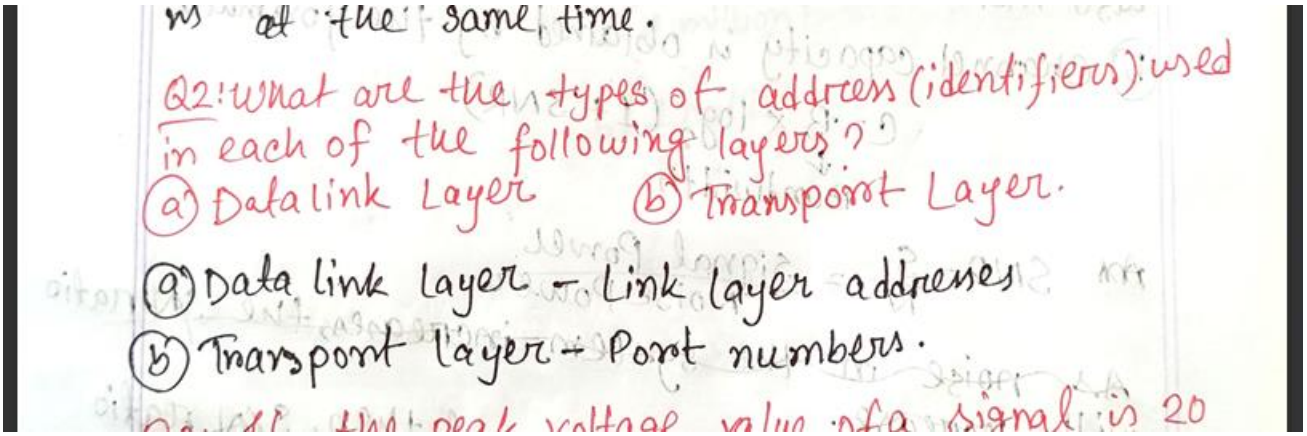
Q2: A host communicates with another host using the TCP/IP protocol suite. What is the unit of Data sent or received at each of the following layers?
(a) Data-link layer (b) Transport layer.

⇒ (a) Data-link layer - Frame
(b) Transport layer - Segment / User datagram.



Q2: What are the types of address (identifiers) used in each of the following layers?
(a) application layer (b) Network layer.

⇒ (a) application layer - Names.
(b) Network layer - Logical addresses.

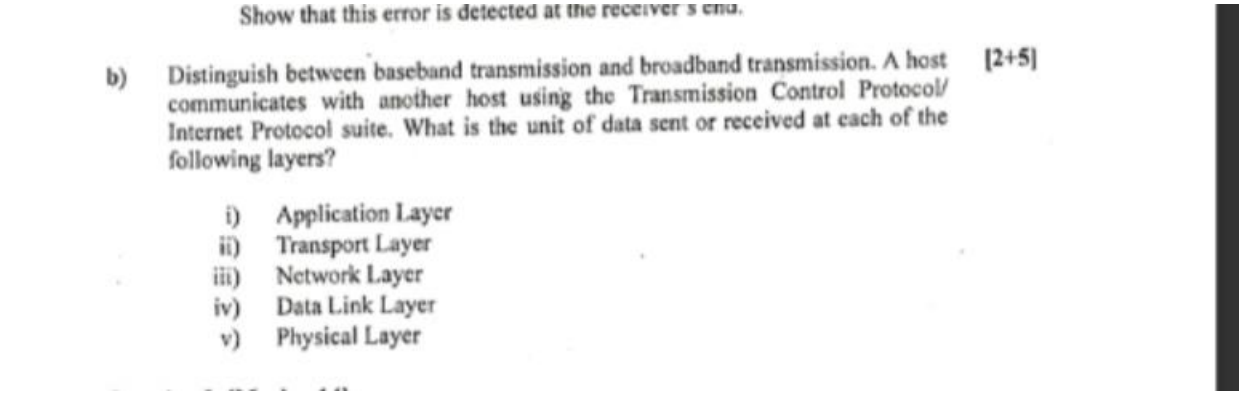


as at the same time.

Q2: What are the types of address (identifiers) used in each of the following layers?
(a) Data link Layer (b) Transport Layer.

(a) Data link layer - Link layer addresses
(b) Transport layer - Port numbers.

Fall21 sem



Show that this error is detected at the receiver's end.

b) Distinguish between baseband transmission and broadband transmission. A host communicates with another host using the Transmission Control Protocol/ Internet Protocol suite. What is the unit of data sent or received at each of the following layers? [2+5]

i) Application Layer
ii) Transport Layer
iii) Network Layer
iv) Data Link Layer
v) Physical Layer

In short:

Baseband Transmission: Uses the entire bandwidth of the medium to transmit a single digital signal directly, typically over short distances and with simpler equipment. Examples include Ethernet communication within LANs and digital communication within a computer system.

Broadband Transmission: Transmits multiple signals simultaneously over the same medium by dividing the bandwidth into different frequency bands, enabling higher data rates and longer distances. Examples include cable television distribution, internet access via cable modems or DSL, and telecommunication networks.