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Lecture 1.

Q.1 Effectiveness of Data Communication System Effectiveness depends upon _____fundamental/s.

1 three

2 one

3 four

Q.2 A data communication system is made up of _____ component/s

2

5

3

Q.3 Anything that can be represented using binary bits is known as:

information

data

message pg#7

Q.4 Physical path that a message uses to travel from the Sender to the Receiver is known as:

Medium pg#8

Signals

Wire

Q.5 A Network-Attached device is known as:

Session

Node pg#10

Computer

Telex

Lecture 2

Q.6 Any thing that physically connects two nodes is known as:

Link pg# 11

Path

Circuit

none

Q.7 Dividing messages into fixed-length packets prior to transmission over a network's communication media

Routing

Packetizing pg#11

Devideing

Q.8 Determining a message's path from sending to receiving nodes is known:

Routing pg#11

Packetizing

Accessing

Tracing

Q.9 A NETWORK is a set of devices (Nodes) connected by

Nodes

Communication Links pg#11

Routes

Q.10 Networks can be classified into Forms

3

2 pg# 13

4

7

Lecture 3

Q.11 We use to allow multiple users to share total capacity of a Transmission Medium

Multiplexing

Congestion Control

™ Interfacing

Q.12 Most important issue in a Data Communication System m is:

Flow control

Routing

Security pg#18

Addressing

Q.13 In computer Networks, communication occurs between two

Entities pg# 18

SYSTEMs

computers

Q.14 Entities must agree on a

PROTOCOL pg#19

Path

Sytem

Device

Q. what protocol defines?

Ans: Protocol defines: What is Communicated? How it is Communicated? And When it is Communicated? Or set of rules use to govern information is known as protocol.

Q.15 Instead of having a single Module for performing communication, there is a structured set of modules that implement communications function” This structure is called:

Protocol Architecture pg#20

Transfer Architecture

No of above

Q. define Characteristics of a Protocol

Ans: Direct or indirect

Monolithic or structured

Symmetric or asymmetric

Standard or nonstandard

Lecture 4

Q.16 “Aprovides a model for development that makes it possible for a product to work regardless of the individual manufacturer

Standard pg#21

Protocol

Node

None of above

Q.17 Standards that are originally invented by a Commercial Organization as a basis for the operation of its products they are wholly owned by that company. They are also called:

Closed Standards page#22

Open standards

Regular standards

Non regular standards

Q.18 Standards that developed by groups or committees are known as open standards.

True pg#23

False

Q.19 Standards are developed mainly by..... entitie/s.

1

2

3 pg#23

4

Q.20 Standard Creation Committees are so slow moving and cannot co-op with the fast growing communication industry.

True pg#24

False

Q.21 ISO stands for:

International Standard's Organization pg#24

Interested Standard's Organization

None of the above

Q.22 (ANSI) stands for:

National Standard Institute pg#27

Q.23 Line Configuration refers to the way two or more devices attach to a

Network

Node

Link pg#27

Q. what is link?

Ans: A link is the physical communication path that transfers data from one device to the other.

Q.24 For communication there must be minimum
Devices connected to the link.

2 pg#27

3

8

1

Q.25 In Multipoint Line Configuration More than
devices share the Link.

Two pg#27

Three

Nine

None of the above

Q.26 If several devices can share the link simultaneously, its
called Spatially shared line configuration.

True pg#27

False

Q.27 If users must take turns using the link , then its called
Temporally shared or Time Shared Line Configuration

True pg#27

False

Lecture 5

“**Q.28** Topology defines the physical or the Logical Agreement of Links in a

Medium

Protocol

Network pg#28

Q.29 possible Relationships in a network are:

Two pg#28

Tree

Ten

None of the above

Q.30 Every device has dedicated a point-to-point link to every other device in

Mesh topology pg# 29

Star topology

Tree topology

Q.31 Correct formula to find the num of connected nodes in mesh topology

$N(n-1)/2$ pg#29

$N(n-1)*2$

$N(n+1)/2$

Q.32 Secondary Hub in a Tree may be Active or Passive HUB

False

True

Q.33 Each device has a dedicated point-to-point link to a central controller in which topology

Star pg#27

Mesh

Ring

Q.34 Central Hub in a Tree is an ACTIVE HUB

True

false

Further read the pros and cons of topologies in hanductus

Lecture 6

Q.35 Transmission Mode is used to define the direction of the signal flow between the

Network

Protocol

linked devices pg# 34

nodes

Q.36 Ais usually Privately owned and Links the devices in a single office, Building or a campus

LAN PG#34

WAN

MAN

Q.37 Size of a LAN depends upon the Needs of Organization and the Type of

Topology

Technology pg#37

Network

Company

Q.38 Data Is sent out in small chunks called

Bundles

Bits

Blocks

<https://vustdentshelp.blogspot.com/>

Packets pg#38

Q.39 Each path is passed from node to

Link

Device

medium

node pg#38

Lecture # 7

Q.40 When two or more networks are connected they become an internetwork or

WAN

Internet pg#39

LAN

Intranet

ISO stands for:

Q.41 International Standards organization

International Standards organization pg#39

None of the above

Q.42 A model that allows two different systems to communicate regardless of their underlying network is known as:

Double system

Open System pg#40

Multisystem

Single system

<https://vustdentshelp.blogspot.com/>

Q.43 OSI Model is not a Protocol

True pg#41

False

Q.44 The communication is governed by

Protocols pg#41

Network

Nodes

ISO

Q.45 The processes on each m/c that communicate at a given layer are called Peer –to peer processes

True pg# 42

False

Q.46 Control data added to a

Data packets

data parcel pg#43

none of the above

Q.47 Receiver removes header and passes it to

Lower layer

Upper layer

Footer

None of the above

Q.48 Passing of data and network information down through the layers of sending machine AND Back up through the layers of the receiving machine is made possible by an INTERFACE.

False

True pg#42

Q.49Deals with the Physical aspect of moving data from one device to another

Network support layer pg# 43

Upper layer

User Support Layers

None of the above

Lecture 8

Q.50 Interface is a plug gable connector that joins one or more

Transmission medium

signal conductors pg#45

nodes

none of the above

Q.51 Physical layer decides the type of

Decoding

Transmission

ENCODING pg#45

None of the above

Q.52 Physical Layer is also concerned with

Transmission medium

Physical layer

Line Configuration pg#45

Q.53 Physical Layer also defines the direction of Transmission between the

Nodes

Network

None of the given

Devices pg#45

Q.54 Which layer Responsible for Node to Node Delivery

Data link layer

Data link layer (2) pg#45

Upper layer

Lower layer

Q.55 The data link divides the stream of bits from Network layer into manageable data units called "FRAMES". This process is known as Framing.

True pg#45

False

Q.56 Data Link layer adds a HEADER to Frame

True pg#45

<https://vustdentshelp.blogspot.com/>

False

Lecture 9

Q.57 Transport layer header includes a type of address called Service Point Address or..... Address

PORT pg#49

Node

Device

Medium

Q.58 Transport layer can be either connection-less or connection-oriented

True pg# 49

False

Q.59 Session layer is the Network Dialog

Connecter

Helndler

Controller pg # 49

None

Most important topic: layers of OSI model must read them

Lecture 10

Q.60reverses the original process to transform message back to its original form

Decryption pg#52

Encryption

<https://vustdentshelp.blogspot.com/>

None of the given

Lecture 11

Q.61 Analog refers to something that isin time.

Continuous pg#56

Discrete

None of the above

Q.62 digital refers to something that isin time.

Continuous

Discrete pg#56

None of the above

Q.63 The completion of one full pattern is called a

Cycle pg#57

Rotation

Loop

None of the above

Q.64 Sine Waves are the most fundamental form of

Upper layer

Transmission medium

network

Periodic Analog Signals pg#58

Q.65 Amplitude of a signal is the value of the signal at point on the wave.

Any pg#59

Specific

Alternative

None of the above

Lecture 12

Q.66 A Sine wave has a frequency of 6 Hz. What is its period? Solution

$T=1/F = 1/6 = 0.17 \text{ sec}$ pg# 61

$f=1/t = 1/6 = 0.17 \text{ sec}$

none of the above

Q.67 Time Domain plots show changes in signal amplitude w.r.t Time

True pg#63

False

Lecture 13

Q.68 To calculate Bandwidth, subtract the lowest frequency from the highest frequency

True pg#66

False

Q.69 Question: If a periodic signal is decomposed into five sine waves with frequencies 100, 300, 500, 700, and 900 Hz, what is the Bandwidth?

Ans: $66 = h - l = 900 - 100 = 800$

Lecture 14

Q.70 Information must be transformed into signals before it can be transported across the communication media.

True pg# 70

False

Q.71 data is usually converted to digital signals o This is called “Digital-to-Digital Conversion” or “Encoding digital data into digital signals”

true pg#70

false

Q.72 Encoding has..... subcategories.

3 pg#72

2

7

1

Q.73 In NRZ Encoding, the level of signal is either

positive

negative

positive or negative both pg# 73

none of the above

Lecture 15

Q.74 Inversion at the middle of the bit interval is used for

<https://vustdentshelp.blogspot.com/>

encryption

decryption

Synchronization pg# 77

None of the above

Q.75 Alteration of AMI adopted in

Europe and Japan both pg#78

Europe

Japan

None of the given

Lecture 16

Q.76 Quantization is a method of assigning integral values in a specific range to sampled

Nodes

Medium

None

Instances pg#80

Q.77 The sampling rate must be at least twice the highest frequency.

True pg# 82

False

Q.78 BitRate =

SamplingRate × No.ofbits/sample pg# 83

SamplingRate - No.ofbits/sample

<https://vustdentshelp.blogspot.com/>

<https://vustdentshelp.blogspot.com/>

SamplingRate+No.ofbits/sample

SamplingRate- No.ofbits*sample

Q.79 mechanism that combines changes in both amplitude and phase called Quadrature Amplitude Modulation(QAM)

true pg#84

false

Q.80 QAM is the most efficient of these options and is the mechanism used in all modern modems

True pg#85

Q.81 no of bits transmitted during one second

Bit rate pg#85

Baud rate

Packets

None of the above

Q.82 no of signal units per second that are required to represent that bit

Bit rate

Baud rate pg#85

Packets

None of the above

Lecture 19

Q.83 Amplitude and Phase of the carrier signal

Alternates

none

<https://vustdentshelp.blogspot.com/>

remain constant pg#96

Lecture 20

Q.84 Conversion devices are required at the

Medium

Device

Node

Interface pg#98

Q.85 Type/s of Serial Transmission is/ are:

Asynchronous Transmission

Synchronous Transmission

Asynchronous Transmission and Synchronous Transmission both pg#99

None of the above

Lecture 21

Q.86 There are basic functional units involved in communication of data

1

2

3

4 pg#101

Q.87 Any device that is a source of or destination of digital data.

DTE pg#101

DCE

<https://vustdentshelp.blogspot.com/>

None of the above

Q.88 Any device that transmits/receives signal through network

DTE

None of the given

DCE pg#101

Q.89 A positive voltage means ON and a negative voltage means OFF

True pg#102

false

Lecture 22

Q.90 EIA 449 provides much better functionality than EIA 232

True pg#110

False

Q.91 We require modem to connect to the

Node

Medium

Device

Internet pg#111

Most important topic : modems

GOOD LUCK

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