

Data Communication (CS601)

MID TERM EXAMINATION SPRING 2010



VU
PLANET
PLANET OF KNOWLEDGE



CS601- Data Communication (Session - 1)

(Marks: 1) - Please choose one

Effective network mean that the network has fast delivery, timeliness and

- ▶ high bandwidth
- ▶ duplex transmission
- ▶ accurate transmission
- ▶ low bandwidth

Question No: 2 (Marks: 1) - Please choose one

A set of devices connected by communication links is called networking

- ▶ True
- ▶ False

Question No: 3 (Marks: 1) - Please choose one

_____ is a multipoint topology.

- ▶ Ring
- ▶ Mesh
- ▶ Tree
- ▶ Bus

Question No: 4 (Marks: 1) - Please choose one

_____ requires the maximum number of I/O ports.

Bus

-
- ▶ Star

▶ Mesh

▶ Ring

Question No: 5 (Marks: 1) - Please choose one

Unidirectional traffic movement is overcome by dual ring technology.

▶ True

▶ False

Question No: 6 (Marks: 1) - Please choose one

As the data packet moves from the lower to the upper layers, headers are _____.

▶ added

▶ subtracted

▶ rearranged

▶ modified

Question No: 7 (Marks: 1) - Please choose one

Data chunk at data link layer is called

▶ frame

▶ packet

▶ datagram

Question No: 8 (Marks: 1) - Please choose one

The _____ layer is the layer closest to the transmission medium.

- ▶ physical
- ▶ data link
- ▶ network
- ▶ transport

Question No: 9 (Marks: 1) - Please choose one

Data synchronization is a function related with _____

- ▶ session layer
- ▶ presentation layer
- ▶ transport

Question No: 10 (Marks: 1) - Please choose one

Which layer is responsible for source to destination delivery of entire message?

- ▶ transport layer
- ▶ network layer
- ▶ session layer
- ▶ application layer

Question No: 11 (Marks: 1) - Please choose one

Encryption and encoding are the same terms.

- ▶ True
- ▶ False
- ▶

Question No: 12 (Marks: 1) - Please choose one

TCP/IP model Application layer incorporate OSI Application and presentation

layers

- ▶ True
- ▶ False

Question No: 13 (Marks: 1) - Please choose one

A sine wave must be an analog signal.

- ▶ True
- ▶ False

Question No: 14 (Marks: 1) - Please choose one

A periodic signal can always be decomposed into

- ▶ exactly an odd number of sine waves
- ▶ a set of sine waves
- ▶ set of sine waves, one of the which must have a phase of 0^0
- ▶ none of the given

Question No: 15 (Marks: 1) - Please choose one

Manchester is a type of _____ encoding.

- ▶ biphase
- ▶ polar
- ▶ biphase & polar
- ▶ none of the given
- ▶

Question No: 16 (Marks: 1) - Please choose one

The powerful carrier signal is called as the _____

- ▶ carrier frequency
- ▶ base signal
- ▶ carrier frequency and base signal
- ▶ none of given

Question No: 17 (Marks: 1) - Please choose one

Modulation of an analog signal can be accomplished through changing the _____ of the carrier signal.

- ▶ amplitude
- ▶ frequency
- ▶ phase
- ▶ all of the given

Question No: 18 (Marks: 1) - Please choose one

In _____ transmission, bits are transmitted over a single wire, one at a time.

- ▶ Asynchronous serial
- ▶ Synchronous serial
- ▶ Parallel
- ▶ Asynchronous & Synchronous serial

Question No: 19 (Marks: 1) - Please choose one

In RS 422 Balanced mode two lines carry _____ signals which are not identical to each other.

same

- ▶ different
- ▶ digital
- ▶ analog

Question No: 20 (Marks: 1) - Please choose one

A _____ converts an analog signal into a digital signal.

- ▶ Demodulator
- ▶ Modulator
- ▶ Digital-to-analog converter

Question No: 21 (Marks: 2)

How does noise affect FSK?

Question No: 22 (Marks: 3)

Define Bit interval and Bit rate.

Question No: 23 (Marks: 5)

Write down the names of layers present in TCP/IP Protocol Suite?

Question No: 24 (Marks: 10)

The data points of a constellation are at (4,0) and (6,0). Draw the constellation. Show the amplitude and phase for each point. Is the modulation ASK, PSK, or QAM? How many bits per baud can one send with this constellation? [10]

MIDTERM EXAMINATION Spring 2009
CS601- Data Communication (Session - 3)

Question No: 1 (Marks: 1) - Please choose one

Frequency of a failure and network recovery time after a failure are measures of the _____ of a network.

- ▶ Performance
- ▶ Reliability
- ▶ Security
- ▶ Feasibility

Question No: 2 (Marks: 1) - Please choose one

Secondary hub in a tree must be a passive hub.

- ▶ True
- ▶ False

Question No: 3 (Marks: 1) - Please choose one

In mesh topology, if there are five nodes then there will be _____ links.

- ▶ 5
- ▶ 10
- ▶ 15
- ▶ 20

Question No: 4 (Marks: 1) - Please choose one

Internet with small "i" specifies the world wide Network the actual internet.

▶ True

▶

False

Question No: 5 (Marks: 1) - Please choose one

Data link layer deals with mechanical and electrical specifications of transmission medium and interface

▶

True

▶

False

Question No: 6 (Marks: 1) - Please choose one

When data are transmitted from device A to device B, the header from A's layer 4 is read by B's _____ layer.

▶

physical

▶

transport

▶

application

▶

none of the given

Question No: 7 (Marks: 1) - Please choose one

Time domain plot show changes in signal phase with respect to time.

▶

True

▶

False

Question No: 8 (Marks: 1) - Please choose one

Frequency band in which 99% of the total power resides is called_____

power bandwidth

half power bandwidth

- ▶ 3dB bandwidth
- ▶ F.M.

Question No: 9 (Marks: 1) - Please choose one

The inversion of the level at 1 bit is called as _____

- ▶ NRZ-L
- ▶ NRZ-I
- ▶ RZ

Question No: 10 (Marks: 1) - Please choose one

Which of the encoding schemes have bandwidth problems?

- ▶ Differential Manchester
- ▶ AMI
- ▶ RZ

Question No: 11 (Marks: 1) - Please choose one

Bi phase and bipolar are same terms.

- ▶ True
- ▶ **False**

Question No: 12 (Marks: 1) - Please choose one

Quantization means measuring amplitudes of signal at equal intervals.

True

False

Question No: 13 (Marks: 1) - Please choose one

The last process in PCM is _____ digital data into digital signal.

- ▶ encoding
- ▶ decoding
- ▶ modulating

Question No: 14 (Marks: 1) - Please choose one

Which modulation technique involves tribits, eight different phase shifts, and one amplitude?

- ▶ FSK
- ▶ 8-PSK
- ▶ ASK
- ▶ 4-PSK

Question No: 15 (Marks: 1) - Please choose one

Asynchronous transmission is

- ▶ slow
- ▶ costly
- ▶ non-effective
- ▶ fast

Question No: 16 (Marks: 1) - Please choose one

Synchronous transmission have _____.

= a start bit

- ▶ a stop bit
- ▶ gaps between bytes
- ▶ none of the given

Question No: 17 (Marks: 1) - Please choose one

The _____ generates the data and passes it along with any control information to a _____.

- ▶ DTE; DCE
- ▶ DCE; DTE
- ▶ DCE; node
- ▶ DTE; application

Question No: 18 (Marks: 1) - Please choose one

A human brain is considered as a

- ▶ driver
- ▶ machine
- ▶ DTE
- ▶ DCE
- ▶

Question No: 19 (Marks: 1) - Please choose one

The last modified version of EIA-232 standard is _____

- ▶ EIA-232 D
- ▶ EIA-232 A
- ▶ EIA-232 B
- ▶ EIA-232 C

Question No: 20

(Marks: 1) - Please choose one

A _____ converts an analog signal into a digital signal.

- ▶ Demodulator
- ▶ Modulator
- ▶ Digital-to-analog converter

Question No: 21

(Marks: 2)

What is simplex mode of transmission?

Question No: 22

(Marks: 3)

What is HDB3.

Question No: 23

(Marks: 5)

Write a note on Full duplex mode of transmission.

Question No: 24

(Marks: 10)

In your view which one is best either B8ZS or HDB3 and why?
Write down salient features of both? What is meant by polarity of 1 since the last substitution