

1. 1.

Suppose two stations in a CDMA system have the following chip sequences:

$B = (-1 -1 +1 -1 +1 +1 +1 -1)$

$C = (-1 +1 -1 +1 +1 +1 -1 -1)$

If the received chip sequence is $(-2 0 0 0 +2 +2 0 -2)$, stations B and C will recover the signal as ___ and ___ respectively

单选题 (5 分) 5 分

1. ☒ A.

1 1

2. ☐ B.

0 1

3. ☐ C.

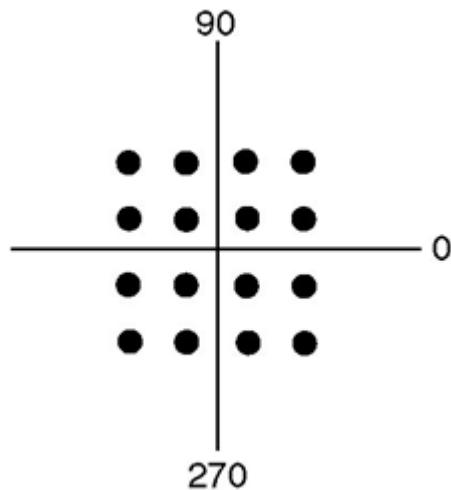
0 0

4. ☐ D.

1 0

2. 2.

A modem constellation diagram similar to the right figure. How many bps can a modem with these parameters achieve at 2400 baud?



单选题 (5 分) 5 分

1. ☐ A.

4800 bps

2. ☐ B.

19200 bps

3. ☒ C.

9600 bps

4. ☐ D.

2400 bps

3. 3.

A circuit-switching network has following characteristics except _____.

单选题 (5 分) 5 分

1. ☐ A.

Fixed bandwidth available

2. ☐ B.

Call setup required

3. ☒ C.

Store-and-forward transmission

4. ☐ D.

Packets arrive in order

4. 4.

Ten signals, each requiring 4 kHz, are multiplexed onto a single channel using FDM. What is the minimum bandwidth required for the multiplexed channel? Assume that the guard bands are 400 Hz wide.

单选题 (5 分) 5 分

1. ☒ A.

43600

2. ☐ B.

None of above

3. ☐ C.

40000

4. ☐ D.

44000

5. 5.

For fiber optics channels, a variation of _____ is used. It's called WDM (Wavelength Division Multiplexing).

单选题 (5 分) 5 分

1. ☐ A.

None of the above

2. ☐ B.

TDM

3. ☐ C.

PCM

4. ☒ D.

FDM

6. 6.

If a channel has the baud rate as 1000 and its signal levels as _____, then its data rate can be 4k bit/s.

单选题 (5 分) 5 分

1. ☐ A.

8

2. ☐ B.

4

3. ☐ C.

2

4. ☒ D.

16

7. 7.

Which kind of media is not a guided media? ()

单选题 (5 分) 5 分

1. ☐ A.

twisted-pair cable

2. ☐ B.

a coaxial cable

3. ☐ C.

fibre optics

4. ☒ D.

communication satellite

8. 8.

12 signals, each requiring 1000 Hz, are multiplexed on to a single channel using FDM. How much minimum bandwidth is required for the multiplexed channel? Assume that the guard bands are 200 Hz wide.

单选题 (5 分) 5 分

1. ☐ A.

17400

2. ☐ B.

15800

3. ☒ C.

14200

4. ☐ D.

11900

9. 9.

If a binary signal is sent over a 3-kHz channel whose signal-to-noise ratio S/N is 31, what is the maximum achievable data rate?

单选题 (5 分) 5 分

1. ☒ A.

6 kbps

2. ☐ B.

18 kbps

3. ☐ C.

12 kbps

4. ☐ D.

15 kbps

10. 10.

What is the percent overhead on a E1 carrier; that is, what percent of the 2.048 Mbps are not delivered to the end user? (give your answer as an integer)

单选题 (5 分) 5 分

1. ☒ A.
6%
2. ☐ B.
8%
3. ☐ C.
7%
4. ☐ D.
5%

11. 11.

A noiseless channel is 18 MHz wide. Howmany bits/sec can be sent if 64-level digital signals are used?

单选题 (5 分) 5 分

1. ☒ A.
216M
2. ☐ B.
64M
3. ☐ C.
36M
4. ☐ D.
18M

12. 12.

The twisting for the twisted pair isfor _____

单选题 (5 分) 5 分

1. ☐ A.
improving transmission speed
2. ☐ B.
none of the above
3. ☐ C.
improving transmission distance
4. ☒ D.
canceling out electromagnetic interference

13. 13.

Which protocol does not belong to the data link layer?

单选题 (5 分) 5 分

1. ☐ A.
HDLC
2. ☒ B.
ICMP
3. ☐ C.
PPP
4. ☐ D.
SDLC

14. 14.

Among the following media, the _____ has/have the best interference immunity.

单选题 (5 分) 5 分

1. ☐ A.
coaxial cable
2. ☒ B.
fiber cables
3. ☐ C.
microwave radio

4. ☐ D.
twisted pairs

15. 15.

When we use a modem, which use 16 phases signal to modulation, then how much can we get the maximum data rate in a 2400 baud channel (in noiseless channel)?

单选题 (5 分) 5 分

1. ☒ A.
9.6kbps
2. ☐ B.
14.4kbps
3. ☐ C.
2400bps
4. ☐ D.
400bps

16. 16.

The two-wire connections between each subscriber's telephone and the end office are known in the trade as the ____.

单选题 (5 分) 5 分

1. ☐ A.
PCM
2. ☒ B.
local loop
3. ☐ C.
trunk
4. ☐ D.
digital trunk

17. 17.

What kind of media is used by 10Base-5 network?

单选题 (5 分) 5 分

1. ☐ A.
Thin coaxial cable
2. ☐ B.
Twisted pairs
3. ☒ C.
Thick coaxial cable
4. ☐ D.
Fiber optics

18. 18.

The _____ layer is concerned with transmitting raw bits over a communication channel.

单选题 (5 分) 5 分

1. ☐ A.
data link
2. ☒ B.
physical
3. ☐ C.
media
4. ☐ D.
communication

19. 19.

The range of frequencies transmitted without being strongly attenuated is called the _____

单选题 (5 分) 5 分

1. ☐ A.
signal
2. ☐ B.
baud
3. ☒ C.

bandwidth

4. ☐ D.

bps

20. 20.

Which of the following description is incorrect for a circuit-switched network?

单选题 (5 分) 5 分

1. ☒ A.

each packet of a connection can follow different paths

2. ☐ B.

call setup is needed

3. ☐ C.

failure of a switch on the packet path is fatal

4. ☐ D.

packets arrive in order