Dec 9, 2008

Test 2
1. d) combination above

2. $R = 16 b/s$  $T = 10 ms$  1KB

50ms

Ack

$1 + 2 + 4 = 7$ KB
3. \( p + J \)  

4. CMTS  
   - cable midden  
   - head end  
   - managers  
   - up stream  
   - down stream  
   - connection to submit  

5. 30 km \( R = 166 \)  
   \[ n_f = 2000 \times 6.83 \]

a) # bits in ladder \( \Rightarrow \gamma = 100 \)  
   \[ \frac{2\pi R}{n_f} = 100 \]  
   \[ n = 7 \]  
   \[ N = 2^7 - 1 = 127 \]
b) $3 \rightarrow 2^3 - 1 = 7 \Rightarrow \frac{7}{1 + \frac{2 \bar{m}e}{m}} = 6.916 \approx \frac{7}{10}$

C) [Diagram of FLD, data control, flag]

so

end, program run

6. $S_{xy} = 36 \bar{v} \quad Q = 20 \text{m}^2$
1. \[ r_1 = 10 \times 10000 = 100000 \text{ b/s} \]

2. \[ n \approx f = \frac{320}{200} \]

3. Decrease sign of net ID

4. TCP checksum covers only header

False

8. 193.1.1.226 255.255.255.224

Net ID, Host ID 11100000
1) 193.1.1.224

2) Host 20  
   226 = 11100010
   11000001.00000001.0000001  
   Host 2
   Net 10

   → 193.1.1.226/27

3. DNS
4. ARP
5. Well known app
12. No

13. True

Layer Security

SSL
- Uses both public & private keys
- Set up a session key
IP Sec
- Transport
- Tunnel
- IKE

Sip
- SS7 (PSTN)
- SDP (VoIP, multimedia)
- H.323
- RSVP

TDM in telephone system
- 1.25 µs = 1/8000 time time
- OS-1 - 1.544 Mbps
  24 OS-0
  Switch Breakplane
  Bit Clock
  Controller
  TDM Hierarchy
  12ms
  Supervised
  125µs
  from
  125µs/24