1. **What is the maximum bit rate achievable in a V.32 standard modem if the baud rate is 2400 and no error correction is used?**

2400\*5= 12000bps

**28. Compare the maximum data rate of a noiseless 4-kHz channel using**

**(a) Analog encoding (e.g., QPSK) with 2 bits per sample.**

**(b) The T1 PCM system.**

尼奎斯特定理

最大传输速率 = 2Blog2V

1. 最大传输速率 = 2\*4000\*log2 4 = 16000bps
2. Log2V=7 一位用作控制位

最大传输速率 = 2\*4000\*7 = 56000bps

1. **What is the essential difference between message switching and packet switching?**

信息交换可以发送任意大小的数据单元，包交换有数据大小限制，长于此的数据会被分成多个数据包。