什么是computer network
a group of interconnected computers. It allows computers to communicate with each other and to share resources and information.

Communication Model的组成
Source, Transmitter, Transmission System, Receiver, Destination

Communication types
三类
Unicasting (one-to-one)
Multicasting (one-to-many)
Broadcasting (one-to-all)

Network 分类
按照大小
PAN, LAN, MAN, WAN

什么是PAN
The interconnection of devices within the range of an individual person.

什么是LAN
privately-owned networks covering a small geographic area.
好处：LANs are restricted in size, which means that the worst-case transmission time is bounded.

什么是MAN
covers a larger geographical area than LAN, ranging from several blocks of building to entire cities.

什么是WAN
computer networks that covers a large geographical area, often a country or continent.

按照拓扑分类（物理连接）
BUS, STAR, RING, MESH, TREE
SMBRT (smart)

什么是BUS
consists of a main run cable and all nodes which are connected to the linear cable.
好处：easy to connect a computer to a linear bus; require less cable length（记中文就行，容易把一个电脑连上去，消耗的电线也少）
坏处：整个网络会崩溃如果总线有一个地方出错(Entire network shuts down if there is a break in the main cable)，很难找到问题出在哪儿 (Difficult to identify the problem if the entire network shuts down)，不适合在大型建筑里应用(not meant to be used as a stand-alone solution in a large building)

什么是STAR
each node connected directly to a central network hub, switch or concentrator.
好处：容易安装(easy to install and wire)，如果加减设备不会对网络有干扰（no disruptions to the network when connecting or removing devices)，容易发现错误(Easy to detect faults)

什么是Internetwork
An internetwork is the connection of two or more distinct computer network via routing.

分类：
intranet : a single administrative entity
extranet
internet: worldwide interconnection

wired media 分类：
telephone line
thin coaxial cable
thick coaxial cable
unshielded twisted pair
shielded twisted pair
fibre

Networking有一些名词：我猜应该是给后面的让填前面吧

Network: physical connection that allows computers to communicate
packet : unit of transfer
point-to-point network: a network in which every physical wire is connected to only two computers.
Router: a device that acts as a junction