

## Examrace

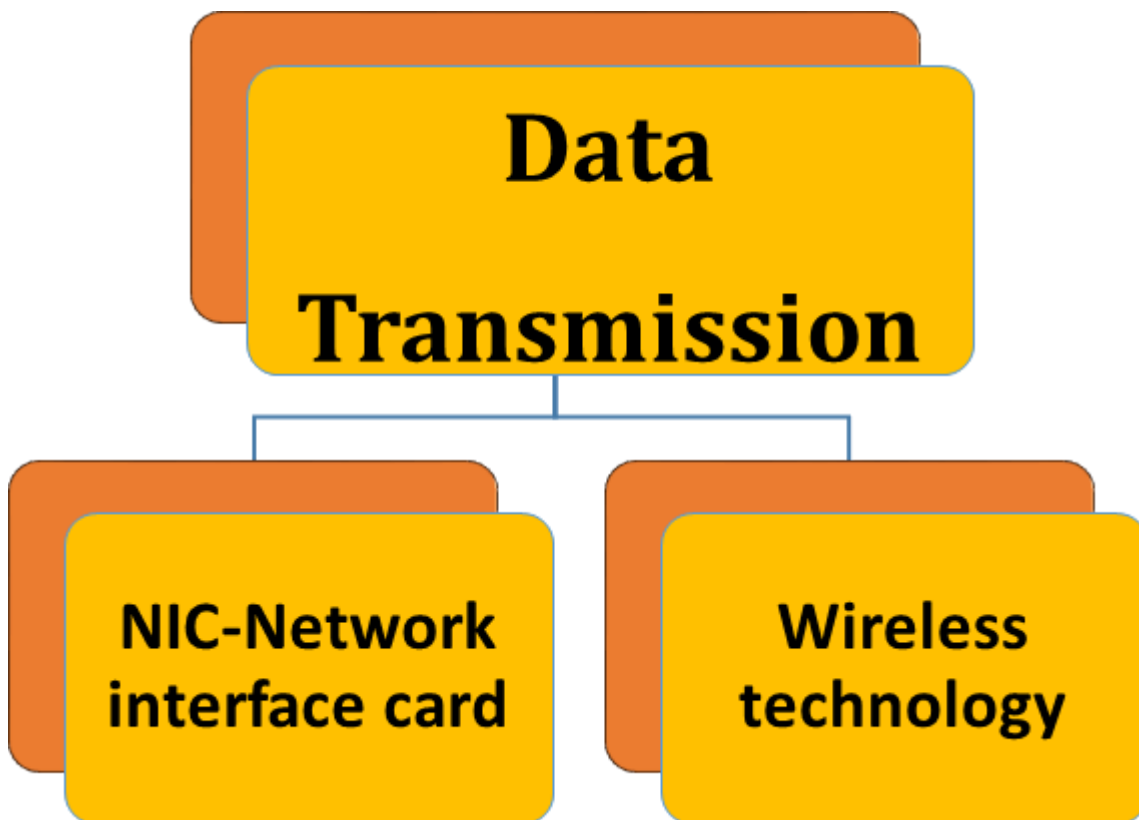
# Data transmission, protocol, TCP/IP, IPV4 and IPV6 for Competitive Exams

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### Data transmission

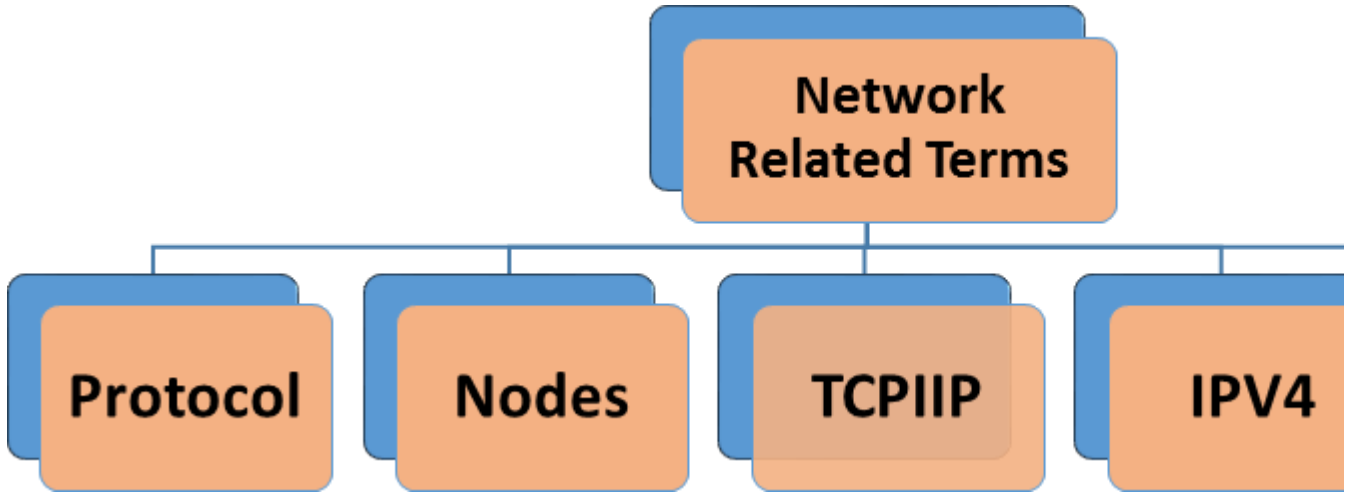
**NIC-Network interface card** – A network interface card (NIC) is a computer circuit board or card that is installed in a computer so that it can be connected to a network.

**Wireless technology** - Wireless communications is a type of data, a wireless signal through wireless communication technologies and device.



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### Network Related Terms



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**Protocol** - It is set of rules and standards which is used by computers to exchange data or information with each other across a network.

**Nodes** - It is a connect point where either data transmission ends or redistribution of data starts.

**TCP/IP** - (Transmission Control Protocol/Internet Protocol) - basic communication language or protocol of the Internet.

**IPV4** - 32 bits numeric address

**IPV6** - 128 bits hexadecimal address

IP version	IPv4	IPv6
Deployed	1981	1999
Address Size	32-bit number	128-bit number
Address Format	Dotted Decimal Notation: 192.0.2.76	Hexadecimal Notation: 2001:0DB8:0234:AB00: 0123:4567:8901:ABCD
Number of Addresses	$2^{32} = 4,294,967,296$	$2^{128} =$ 340,282,366,920,938,463, 463,374,607,431,768,211,456
Example of Prefix Notation	192.0.2.0/24	2001:0DB8:0234::/48

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*Difference between IPv4 and IPv6*

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