[**Basic Networking Questions**](https://blog.oureducation.in/networking-questions/)

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During any interview generally candidates of CS & IT and Electronics & Telecommunication background have to face questions from networking therefore candidates must prepare some networking interview questions.These are basic networking questions that are asked by any recruiter.I am from computer science branch & have faced these basic networking interview questions. I have shared my experience here and I hope it will be helpful while facing interviews.



Basic Networking questions

**Basic Networking questions :-**

1. **1. What is the length of ipv6?** Important Interview networking questions

Ans:- 128 bit

**2. Where is the hub specified in the OSI  model?**

Ans:- Physical layer

**3. Difference between TCP and UDP?**

Ans:a) TCP is Transmission control protocol.  
b) It is connection oriented.  
c) Reliable  
d) Uses checksum to detect errors.

UDP-

a) UDP is user datagram protocol.  
b) It is connectionless.  
c) Non reliable.  
d) No acknowledgement.

**4. What is a gateway? Networking questions**

Ans:-Gateway is a device that connects two dissimilar networks. It is in application layer.

**5. Name the two routing protocols?**

Ans:-RIP & OSPF (intra domain routing protocol)

**6. What is the advantage of OSPF protocol?**

Ans:-OSPF(open shortest path first) based on link state routing protocol. It handle routing efficiently and in timely manner.

**7. What are the different  layers in the OSI model?**Basic Networking questions

Ans:- Different layers of OSI model:

* Physical layer
* Data link layer
* Network layer
* Transport layer
* Session layer
* Presentation layer
* Application layer

**8. What is a firewall? Basic Networking questions**

Ans:-Firewall is a network that protects internet from unauthorized access. It is need for every computer system. proxy firewall is a type of firewall.

**9. Difference between intra domain and inter domain routing protocol?**

Ans:-Routing within an autonomous system is referred as intra domain routing protocol and routing between an autonomous system is called as inter domain routing protocol.

**10. Name the ports used by FTP protocol?**

Ans:- FTP is file transfer protocol. It copies  file and transfer from one system to another port no is 20 for connection and port 21 is for data transfer.

**11. Define Network?**

Ans:- A network is a collection of devices which are connected by means of physical media links or it is connection of two or more nodes in a recursive manner by a physical link.

Basic Networking interview questions

**12. What is a Link? basic networking questions**

Ans:-  Link is a physical medium such as coaxial cable or optical fibre that connects two or more computers directly which form a network.

**13. What is a node?**

Ans:- Links are physical medium that connects two or more computers directly and the computer it connects is called as nodes.

**14. State the advantages of Distributed Processing?**

Ans:- The advantages are:-

a. Security/Encapsulation  
b. Distributed database  
c. Faster Problem solving  
d. Security by means of redundancy  
e. Collaborative Processing

**15. Mention the factors by which a network performance is affected?**

Ans:-

a. No. of Users  
b. Transmission medium type  
c. Hardware  
d. Software

**16. Name the factors that affect the reliability of the network? basic networking questions**

a. Failure frequency  
b. Network Recovery time after a failure

**17. What are the key elements of protocols?**

Ans:- The key elements of protocols are as follows:-  
a. Syntax  
It refers to the format of the data, the order in which they are represented.  
b. Semantics  
It refers to the meaning of each section of bits.  
c. Timing  
Timing refers to: When data should be sent and how fast.

**18. Mention the key design issues of a computer Network?**

Ans:- The Key design issues are as follows:-

a. Connectivity of the network  
b. Cheap resource Sharing  
c. Common Services will have support  
d. Performance of the network

**19. Define Bandwidth and Latency? basic networking questions**

Ans:- Performance of network is measured in Bandwidth called throughput and Latency  called Delay. Network bandwidth is the number of bits which can be transmitted over the network over a certain period of time. Latency refers to the time taken by a message to travel from one end of network to another. It is strictly measured in terms of time.

**20.  Describe the situation when a switch is said to be congested?**

Ans:- It is possible that a switch for an extended period of time can receives packets faster than the shared link can accommodate and stores in its memory, then the switch will eventually run out of buffer space, and some packets has to be dropped & is said to be congested state.

**21. Describe semantic gap?**

Ans:-  A useful channel includes both two things that is to understand the applications requirements and recognize underlying technology limitations. The gap between what applications expects or desires and what the underlying technology can provide or give is called semantic gap.

**22. Which layers are user support layers?**

Ans:- User support layers are as follows:-

a. Session layer  
b. Presentation layer  
c. Application layer

**23. What is Error Detection? What are the methods?**

Ans:-  During transmission data can get corrupted. In order to have a reliable communication errors must be deducted and corrected. Error Detection uses the concept of redundancy by means of which it adds extra bits to detect errors at the destination. The error detection methods are as follows:-  
a. Vertical Redundancy Check  
b. Longitudinal Redundancy Check  
c. Cyclic Redundancy Check  
d. Checksum

**24. What are Data Words?**

Ans:- In block coding, message is divided into blocks, each of k bits, called data words. The same data word is always encoded as the same code word.

**25. What is Framing?**

Ans:- The work of framing in the data link layer is to separate a message from one source to a destination, or from other messages to other destinations, by adding a sender & destination address. The destination address is the address of the packet  where it has to go and the sender address helps the recipient acknowledge the receipt.

**26. What is Error Control ?**

Ans:- Error detection and error correction is called as error control. If any frame is lost or damaged in transmission than the receiver inform it to that particular sender and ask to retransmit those frames by the sender. In the data link layer, error control refers primarily to methods of error detection and retransmission.

**27. What is utility of sequence number in Reliable Transmission?**

Ans:- The protocol specifies that frames numbering has to be done using sequence numbers. A field is added to the data frame section in order to hold the sequence number of that frame. As we want to minimize the frame size which will provide unambiguous communication. The sequence numbers can wrap around.

**28. What is MAC address?**

Ans:-  Media Access Control (MAC) layer is the device address in the network architecture. MAC address is unique and is usually stored in ROM on the network adapter card.

**29. What is the difference between TFTP and FTP application layer protocols?**

Ans:- In order to obtain files from a remote host trivial file transfer protocol is used but it does not provide reliability or security. The File Transfer Protocol (FTP) is the standard mechanism which is by TCP / IP to copy a file from one host to another. TCP offer services that are reliable and secure.  Two connections are established between the hosts, one for data transfer and another for control information.

**30. What are major types of networks explain it?**

Ans:- Two major types-Server-based network: In this there is centralized control of network resources and it depends on server computers for security as well as network administration  
Peer-to-peer network: In this the computers can act as both sharing resources servers as well as  clients using the resources.

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