

## NETWORKING AND OPEN STANDARDS

### Important Questions Part-1

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#### Q1. What is MAC Address?

**Ans:-** In computer networking, a Media Access Control address (MAC) is a unique identifier assigned to most network adapters or network interface cards (NICs) by the manufacturer for identification, and used in the Media Access Control protocol sub-layer.

#### Q2. Write two advantages of networks.

**Ans:** Advantages: i) Data or information can be shared among the users.  
ii) Fast communication can be achieved.

#### Q3. Write two disadvantages of networks.

**Ans :** Disadvantages of networks:

- i. Sophisticated Hardware and software technology is required.
- ii. Expensive to install network.

#### Q4. What is communication channel? Name the basic types of communication channels available.

**Ans:** What is communication channel? Name the basic types of communication channels available. Communication channels mean the connecting cables that link various workstations. There are 3 basic types of cables:

Twisted Pair cables

Coaxial cables

Fiber-optic cables

#### Q5. Define a network.

**Ans:** A computer network is a system in which computers are connected to share information and resources.

#### Q6. What is IP address?

**Ans:-** A unique number consisting of 4 parts separated by dots, e.g. 165.113.245.2 Every machine that is on the Internet has a unique IP number - if a machine does not have an IP number, it is not really on the Internet.



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**Q7. What is domain name? How is it alternatively known?**

**Ans** The unique name that identifies an Internet site. Domain Names always have 2 or more parts, separated by dots. The part on the left is the most specific, and the part on the right is the most general. E.g.: matisse.net

**Q8. What are the various types of networks?**

**Ans :** Network can be classified on the basis of their size, complexity and geographical spread. On the basis of geographical spread it can be classified as Local Area Network, Metropolitan Area Network and Wide Area Network.

**Q9. What is the difference between MAN and WAN?**

**Ans :** A metropolitan area network (MAN) is a large computer network that usually spans a city or a large campus. WAN is a network that covers an area larger than a single building or campus such as across the cities or countries.

**Q10. What is meant by Topology? Name some popular topologies.**

**Ans:** Network topology is defined as the interconnection of the various elements (links,nodes, etc.) of a computer network. In computer networking, topology refers to the layout of connected devices.

- Bus topology
- Star topology
- Ring topology
- Tree topology
- Mesh topology

**Q11. What are the similarities and differences between bus and tree topologies?**

**Ans:** In bus topology each machine is connected to a single cable. Each computer or server is connected to the single bus cable through some kind of connector. Tree topology is a network with the shape of an inverted tree in which a single link between two nodes.

**Q12. What are the limitations of star topology?**

**Ans** i) Central node dependency: In this topology central node is a controller of the network. If the central node fails, the entire network will be failed.

ii) Difficult to expand: The addition of a new node to a network involves a connection all the way to the central node.



## Important Questions Part-2

### FREE AND OPEN SOURCE SOFTWARE

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#### Q1. What is OSS?

**Ans** Open Source Software is a software available with source code and free to change/edit / redistribute and imposed no further restrictions on product or its usage.

#### Q2. Expand the terms: OSI, FLOSS, FSF, GNU, W3C, and PHP.

**Ans:** OSI: Open source Initiative

FLOSS: Free Libre and Open Source Software.

FSF: Free software Foundation created for the purpose of supporting free Movement.

GNU : GNU's Not Unix Project established with an objective to create a systemCompatible to UNIX but not identical with it.

W3C: World Wide WEB consortium is responsible for producing the software standards for World Wide Web.

PHP: Hypertext Pre-processor is a widely used open source programming language primarily for server side applications and developing dynamic web content.

#### Q3. What is free software?

**Ans :** Free Software means the software is freely accessible and can be freely used, changed, improved, copies and distributed to others.

#### Q4. Define freeware and shareware.

**Ans** The freeware is the software available free of cost and allows copying and further distribution but does not allows modification as its source code is not available.Shareware is as software which is available for redistribution for stipulated time but after some time some license fee is required to be paid.

#### Q5. What is openoffice.org?

**Ans** It is Office an application suite which is free software and directly competes with Microsoft Office. It is compatible with MS Operating System, UNIX, MAC OS.

#### Q6. What is font? What is OTF?

**Ans :** A font is a set of displayable or printable text characters having specific style and size.



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Open Type Font: It is the extension of the True Type Font Format which is 16 bits font and support 65536 characters ( Unicode characters).

**Q7. What are different font categories?**

**Ans :** There are two categories of font: True Type Font and Open Type Font.

True Type Font: It is developed by Apple and licensed to Microsoft. It is 8 bit font which is compatible with Microsoft Windows and MAC OS. Open Type Font: It is the extension of the True Type Font Format which is 16 bits fon and support 65536 characters ( Unicode characters).

**Q8. Define ODF.**

**Ans :** ODF is an Open Document file Format used for exchanging office documents such as memos, reports, spreadsheets, database, charts and presentations. Open document is open, XML based file format used for exchanging office documents such as memos, reports, spreadsheets, database, charts and presentations.

**Q9. What is key map based text entry?**

**Ans:** When you type text from a keyboard having key mapping of Indian Languages characters is known as key map based text entry.

**Q10. What is Unicode?**

**Ans:** Unicode provides a unique number for every character, no mater what the platforms, no matter what the program, no matter what the language. Unicode can represent 94140 characters.

**Q11. What is ISCII?**

**Ans :** Indian Standard Code for Information Interchange (ISCII) is a coding scheme for representing various writing systems of India. It encodes the main Indic scripts and a Roman transliteration. When we type Indian Language words phonetically in English script and tool will automatically convert them into corresponding language words called as transliteration.

**Q12. What is Indian Script key map known as?**

**Ans :** Key map based text entry: When you type text from a keyboard having key mapping of Indian language characters, is known as key map based text entry.

