# Self-test Internet concepts and techniques

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# INTRODUCTION SELF-TEST INTERNET CONCEPTS AND TECHNIQUES

Doing this test, you will get a pretty good idea whether you have a sufficient basic understanding of “TCP/IP - intranet - internet - web - cloud”, to attend web-oriented courses with a maximum of result.

This test contains 20 questions. Unless clearly stated, there is only one good answer to a question.

There are no trick questions, at least we did not intentionally add them. Read and reread question and answers carefully. It will take you approximately 25 minutes to do the test.

The correct answers and guidelines for evaluation can be found on the last page of this document.

# QUESTIONS SELF-TEST INTERNET CONCEPTS AND TECHNIQUES

1. Should NOT be in this list:

   O (a) internet

   O (b) extranet

   O (c) LAN

   O (d) intranet

2. You can say that Internet ...: (2 answers)

   [_] [a] is used to send electronic mail

   [_] [b] is based on a complex combination of multiple network protocols as there are SNA, TCPIP, IPX/SPX ...

   [_] [c] start a terminal session to connect to a remote host

   [_] [d] is extremely flexible, any IP address will do to get access to it

3. Is certainly *not* a property of an IP(v4)-address:

   O (a) a 128-bit length

   O (b) the address structure contains a network part and a host part

   O (c) an association with a subnetmask

   O (d) an address content determined by class

4. A router:

   O (a) organises the part of the network your computer belongs to

   O (b) determines the complete route from sender to recipient

   O (c) sends messages from one network into another network

   O (d) manages a list containing the names of all machines in the network

5. Which of the following does *NOT* indicate a internet application protocol?

   O (a) FTP

   O (b) PPT

   O (c) SMTP

   O (d) HTTP

6. The IP-protocol: (2 answers)

[_] [a] plays an important part in creating a logical internetwork

[_] [b] is unreliable

[_] [c] establishes a physical route (like phone-lines) from sender to recipient in order to improve transmission speed

[_] [d] always uses the same route from sender to recipient

7. Port, portnumber and socket: *(one answer)*

O (a) are important technical terms for UDP and TCP

O (b) are important technical terms when plugging in mobile computers in the network

O (c) are only used by server programs

8. If domainnames (DNS) are used:

O (a) IP-addresses become superfluous

O (b) a nameserver is mandatory

O (c) these names have to be published to one central database on a world-wide level

O (d) we can choose what ever name we like for the computers belonging to our domain

9. If a user on the Internet sends a mail message to his neighbour:

O (a) this mail message gets delivered to the mail software of the neighbour immediately

O (b) his mailserver will deliver the mail message to the mailserver of the neighbour

O (c) his mailserver will deliver the mail message to the mail software of the neighbour

O (d) this mail message gets send to a central mail-dispatcher on the internet, that will determine where on earth the neighbour lives

10. To access the mail server a mail client has a choice of two protocols: (2 answers)

[_] [a] PGP

[_] [b] IMAP

[_] [c] POP

[_] [d] MIME

11. One of the following is NOT defining ‘cloud computing’:

O (a) a technique to offer scalable online services

O (b) a kind of Internet-based computing that provides shared processing resources and data to computers and other devices on demand.

O (c) a number of computer servers inside a company, that are only accessible after profound security checks and with special access codes

O (d) a computer infrastructure that is exclusively accessible inside a company context, and which provides a number of applications distributed amongst multiple servers.

12. One of the following is *NOT ESSENTIAL* as a technique used for the interaction between browser and webserver:

O (a) URL

O (b) WWW

O (c) HTTP

O (d) HTML

13. Web pages: (2 answers)

[_] [a] can be written in Java

[_] [b] are written using HTML and carried by HTTP

[_] [c] can dynamically be created by a Web server incorporating data found in a database like Oracle or DB2

[_] [d] are written using HTTP and carried by HTML

14. One of the following is NOT a valid URL expression:

O (a) mailto:bill.gates@ibm.com

O (b) ls /ncourses/n0749.html

O (c) https://abis.be/cgi-bin/query?q=%2Babis+%2Btraining&Translate=on

O (d) http://10.24.235.56/ncourses/n0749.html

15. A possible advantage of XML could be:

O (a) in contrast to HTML, no tags are used to create the text

O (b) allows to combine structure and contents of a document into one file

O (c) is very suitable for displaying information in a browser

16. The fact that Java can be used to extend the functionality of web applications, can be demonstrated by the following technique, amongst others:

O (a) ASP

O (b) JSP

O (c) .net

O (d) CGI

17. Does NOT belong here:

O (a) GIF

O (b) JPEG

O (c) MPEG

O (d) WAVE

18. Impersonate someone else, in order to get (illegal) access to a server(program), is called:

O (a) hacking

O (b) spoofing

O (c) tracking

O (d) pinging

19. A **firewall** construct can be very useful to:

O (a) to protect important machines from physical hazards

O (b) to keep the temperature in computer rooms at an acceptable level

O (c) to control network access to important machines

20. An application-gateway: (2 answers)

[_] [a] can be a proxy-server

[_] [b] can only check the IP-info of messages send through the network

[_] [c] can be of use to link applications outside the company network with applications used within the company network

[_] [d] can NEVER be part of a firewall construct

# EVALUATION.

Here are the correct answers to all questions:

1. c
2. a c
3. a
4. c
5. b
6. a b
7. a
8. d
9. b
10. b c
11. c
12. b
13. b c
14. b
15. b
16. b
17. d
18. b
19. c
20. a c

Give yourself 1 point for each correctly answered question. (For multiple answer questions, this means that **all** correct answers must be marked.)

If your score is less than 50%, you are advised strongly to acquire the basic understanding on “TCP/IP - intranet - internet - web - cloud” by following the course Internet and cloud technology demystified.

Even with a score between 50% and 80%, we feel that you should further develop your basic understanding of “TCP/IP - intranet - internet - web - cloud”.

A score higher than 80% indicates that a follow-on course on web programming will be a more appropriate choice. In this case you can follow for instance Java EE: building web applications with servlets & JSPs or JavaScript programming.