



Tracking Exercise (DNS, SMTP, HTTP)

Puntuació total 5/13 ?

Multiple choice questions unless stated otherwise.

✓ 1. About DNS. 1/1

- ☐ The local NS (Name Server) receives the IP addresses of the "root servers" via DHCP.
- ☒ A DNS client host gets the IP address of the local Name Servers via DHCP unless manual configuration is used. ✓
- ☒ An authoritative DNS server specifies all the names and their corresponding IP addresses in a domain. ✓
- ☐ An authoritative DNS server specifies the MX RR (Resource Record) of all its subdomains.

✗ 2. About the DNS. 0/1

- ☐ When resolving the same name at different times different IP addresses may be obtained.
- ☒ When resolving different names the same IP address may be obtained. ✓
- ☐ The CNAME Resource Record (RR) contains the IP address of a name.
- ☒ More that one CNAME RR may point to the same name. ✓

Resposta correcta

- ☒ When resolving the same name at different times different IP addresses may be obtained.
- ☒ When resolving different names the same IP address may be obtained.
- ☒ More that one CNAME RR may point to the same name.

✗ 3. A local Name Server (DNS server) must resolve the name 0/1

xc.fib.upc.edu. All the DNS servers needed for the resolution do not have any information in their caches and the resolution gives the correct IP address.

- ☒ The NS uses UDP and source port 53. ✗
- ☐ The NS will send three DNS Requests, at least.
- ☒ An access to the Root Server is required. ✓
- ☐ Each of the DNS Responses the NS will get will contain an A RR (Resource Record), at least.

Resposta correcta

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✓ 4. About SMTP. 1/1

- ☐ SMTP may use either UDP or TCP.
- ☒ The SMTP server sends an status messages once the STMP client has send the QUIT command. ✓
- ☒ The HELO command may include the name of the STMP client. ✓
- ☐ In the SMTP message the Header and the Body is separated by a "." plus a blank line.

✓ 5. About SMTP. 1/1

- ☐ The SMTP client MUA (Mail User Agent) uses the DNS MX RR (Resource Record) to obtain the IP address of the remote destination mail server
- ☒ The MTA (Mail Transfer Agent), also known as the SMTP server, uses the DNS MX RR to obtain the IP address of the remote destination mail sever. ✓
- ☐ The SMTP client (MUA) uses the DNS MX RR to select the SMTP server from where to get the messages.
- ☒ The SMTP protocol may send more that one mail message in a single SMTP connection if the destination mail server is the same for all the messages. ✓

✗ 6. About SMTP. 0/1

- ☐ The user mail client MUA (Mail User Agent) must resolve the DNS MX RR (Resource Record).
- ☒ The user mail client may use SMTP for downloading the mail messages from its server. ✗
- ☐ Some of the SMTP commands are: MAIL FROM, SUBJECT, DATA and QUIT.
- ☒ Two SMTP servers exchange mail messages using SMTP. ✓

Resposta correcta

- ☒ Two SMTP servers exchange mail messages using SMTP.

✓ 7. What is MIME used for? 1/1

- ☒ Encoding binary objects in an SMTP message ✓
- ☐ Encoding non-ASCII information in DNS
- ☒ Encoding binary objecys in HTTP ✓
- ☐ Encoding complex URL

✗ 8. About MIME: 0/1

- ☒ Base64 "transfer encoding" is used in HTTP for including binary objects ✗
- ☒ Base64 "transfer encoding" is used in SMTP for including binary objects ✓
- ☒ The Quoted-Printable "transfer encoding" is used in HTTP for sending text ✗
- ☒ The Quoted-Printable "transfer encoding" is used in SMTP for sending text ✓

Resposta correcta

- ☒ Base64 "transfer encoding" is used in SMTP for including binary objects
- ☒ The Quoted-Printable "transfer encoding" is used in SMTP for sending text

✗ 9. About Charsets. 0/1

- ☐ The family of ISO 8859 codes use a singe byte per character
- ☒ UNICODE defines a code of 4 bytes per symbol (character) ✓
- ☐ UTF-8 uses a single character of 8 bits per character
- ☒ UFT-8 uses from one to four bytes per UNICODE symbol (character) ✓

Resposta correcta

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- ☒ UNICODE defines a code of 4 bytes per symbol (character)
- ☒ UFT-8 uses from one to four bytes per UNICODE symbol (character)

✗ 10. About HTTP, proxies and caches. 0/1

- ☐ The Etag option in the HTTP header is used to obtain the date the requested object (file)
- ☒ The Etag option in the HTTP header is used to check if the requested object (file) has been modified. ✓
- ☐ The conditional options if the HTTP header "Etag" and "If-Modified-Since" may be used by a user client if the object is already in its cache.
- ☒ The conditional options if the HTTP header "Etag" and "If-Modified-Since" may be used by a proxy cache if the object is already in its cache. ✓

Resposta correcta

- ☒ The Etag option in the HTTP header is used to check if the requested object (file) has been modified.
- ☒ The conditional options if the HTTP header "Etag" and "If-Modified-Since" may be used by a user client if the object is already in its cache.
- ☒ The conditional options if the HTTP header "Etag" and "If-Modified-Since" may be used by a proxy cache if the object is already in its cache.

✗ 11. About HTTP. 0/1

- ☐ An HTTP non-persistent connection may improve its performance if it uses "pipelining".
- ☒ An HTTP persistent connection may not use "pipelining". ✓
- ☐ The header of a GET command may include the MIME types the client can accept.
- ☐ The HEAD command checks if the format of the obejct is correct.

Resposta correcta

- ☒ An HTTP persistent connection may not use "pipelining".
- ☒ The header of a GET command may include the MIME types the client can accept.

✓ 12. About HTTP and HTML. 1/1

- ☒ An HTTP client may send data to the server using the POST command. ✓
- ☒ The javascript code downloaded from the HTTP server is executed in the client. ✓
- ☒ The use of proxy cache may reduce the page downloading time significantly. ✓
- ☒ MIME may be used to include multimedia objects in a web page. ✓

✗ 13. About Application Protocols. 0/1

- ☐ The DNS server, the SMTP server and the HTTP server of an organization must run in different physical server.
- ☒ The DNS server may be provided by the ISP (Internet Service Provider) but the SMTP server must have an IP address of the organization's domain. ✗
- ☒ The local NS (Name Server) cannot be placed in the private network. ✗
- ☒ The DNS server may be provided by the ISP, the SMTP server may be provided by a third party, and the HTTP server may be provided by a hosting services company ✓
- ☒ The IMAP, POP and SMTP servers must run in the same physical server ✗

Resposta correcta

- ☒ The DNS server may be provided by the ISP, the SMTP server may be provided by a third party, and the HTTP server may be provided by a hosting services company

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