Question 1

A CDN is a company that installs many geographically distributed caches throughout the Internet, thereby localizing much of the traffic. What does the abbreviation stand for?

Choose one answer.

- ○ 1. conditional GET
- ○ 2. Content Distributed Network
- ○ 3. round-trip time
- ○ 4. distribution time

Question 2

A DNS resource record (RR) is a four-tuple record that contains what fields?

Choose one answer.

- ○ 1. Domain name system
- ○ 2. conditional GET
- ○ 3. P2P architecture
- ○ 4. (Name, Value, Type, TTL)

Question 3

A simple file transfer protocol that uses two parallel TCP connections (a control connection and a data connection) to transfer a file.

Choose one answer.

- ○ 1. TCP (Transmission control protocol)
- ○ 2. Application-layer protocol
- ○ 3. FTP (file transfer protocol)
- ○ 4. UDP (User datagram protocol)

Question 4

A software interface which messages are sent into and messages are received from in the network. Analogous to the doors of a house.

Choose one answer.

- ○ 1. DNS
- ○ 2. cookie
- ○ 3. file
- ○ 4. socket

Question 5

A TCP connection between a client and a server requires a minimum of how many RTTs?

Choose one answer.

- ○ 1. 8
- ○ 2. 2
- ○ 3. DNS
- ○ 4. NF/u

Question 6

A web cache is also known as a?

Choose one answer.

- ○ 1. proxy server
- ○ 2. port number
- ○ 3. socket
- ○ 4. data center

Question 7
A web server identifies users by storing a file on the users computer using the set-cookie header in a server response. If a client already has a cookie it can notify the server of it using the cookie header. The file is known as a:
Choose one answer.
○ 1. socket
○ 2. cookie
○ 3. file
○ 4. F/dmin

Question 8
An enhancement for TCP providing security:
Choose one answer.
○ 1. Time to Live
○ 2. socket
○ 3. canonical hostname
○ 4. SSL

Question 9
Because a host could be running many network applications, a destination ____ _____ is needed.
Choose one answer.
○ 1. data center
○ 2. true
○ 3. proxy server
○ 4. port number

Question 10
Different methods of HTTP request:
Choose one answer.
○ 1. reliable data transfer
○ 2. +OK and -ERR
○ 3. USER, PASS, LIST, RETR, STOR
○ 4. GET, POST, HEAD, PUT, and DELETE

Question 11
DNS is the abbreviation for:
Choose one answer.
○ 1. conditional GET
○ 2. data center
○ 3. canonical hostname
○ 4. Domain name system

Question 12
During the transaction phase POP3 can be configured to:
Choose one answer.
○ 1. "download and delete" or "download and keep"
○ 2. host aliasing, mail server aliasing, load distribution
○ 3. GET, POST, HEAD, PUT, and DELETE
○ 4. HELO, MAIL FROM, RCPT TO, DATA, and QUIT

Question 13
How doess Post Office Protocol Version 3 (POP3) access mail?
Choose one answer.
○ 1. A request line, header lines, and an entity body
○ 2. USER, PASS, LIST, RETR, STOR
○ 3. It does so in 3 phases: authenticate phase, retrieve phase, update phase
○ 4. user agents, mail servers, and SMTP

Question 14
How is the DNS hierarchical database broken down?
Choose one answer.
- ○ 1. A request line, header lines, and an entity body
- ○ 2. Date, Server, Last-Modified, Content-Length, Content-Type
- ○ 3. A status line, six header lines, and then an entity body
- ○ 4. 13 Root DNS servers to top level DNS servers to authoritative DNS servers

Question 15
How many bits are typically in a byte?
Choose one answer.
- ○ 1. DNS
- ○ 2. NF/u
- ○ 3. 2
- ○ 4. 8

Question 16
HTTP is defined in which RFC?
Choose one answer.
- ○ 1. RFC 1235
- ○ 2. RFC 2616
- ○ 3. RFC 2334
- ○ 4. RFC 1221

Question 17
Important services DNS provides _____.
Choose one answer.
- ○ 1. host aliasing, mail server aliasing, load distribution
- ○ 2. USER, PASS, LIST, RETR, STOR
- ○ 3. user agents, mail servers, and SMTP
- ○ 4. HELO, MAIL FROM, RCPT TO, DATA, and QUIT

Question 18
In a P2P file transfer among N peers the _____ ____ is the time it takes to get a copy of the file to all N peers.
Choose one answer.
- ○ 1. Time to Live
- ○ 2. distribution time
- ○ 3. conditional GET
- ○ 4. round-trip time

Question 19
In order to improve DNS delay performance and to reduce the number of DNS messages this method is used:
Choose one answer.
- ○ 1. socket
- ○ 2. DNS
- ○ 3. cookie
- ○ 4. DNS Caching

Question 20
In P2P, what is the formula for the minimum distribution, where F is the number of bits in the file?
Choose one answer.
- ○ 1. DNS
- ○ 2. cookie
- ○ 3. F/dmin
- ○ 4. NF/u

Question 21

In the Internet, the host is identified by its:

Choose one answer.

○ 1. DNS
○ 2. F/dmin
○ 3. socket
○ 4. IP address

Question 22

In this type of architecture there is an always-on host, called the server, which services requests from many other hosts, called clients.

Choose one answer.

○ 1. distribution time
○ 2. round-trip time
○ 3. client-server architecture
○ 4. proxy server

Question 23

Name two popular mail access protocols:

Choose one answer.

○ 1. Time to Live
○ 2. ICMP and POP3
○ 3. +OK and -ERR
○ 4. IP address

Question 24

Often in a client-server application, a single-server host is incapable of keeping up with all the requests from clients so for this reason a ____ _____, housing a large number of hosts, is often used to create a powerful virtual server.

Choose one answer.

○ 1. data center
○ 2. true
○ 3. proxy server
○ 4. port number

Question 25

One of the most compelling features of P2P architectures is their _____.

Choose one answer.

○ 1. conditional GET
○ 2. socket
○ 3. DNS Caching
○ 4. self-scalability

Question 26

RTT is the abbreviation for?

Choose one answer.

○ 1. round-trip time
○ 2. conditional GET
○ 3. round turnaround time
○ 4. distribution time

Question 27

Sockets are the ___ between the application and the network.

Choose one answer.

○ 1. Application Programming Interface
○ 2. Application-layer protocol
○ 3. distribution time
○ 4. reliable data transfer

Question 28

TCP an UDP are forms of transport layer protocols, HTTP and SMTP are forms of what protocol?

Choose one answer.

○ 1. conditional GET
○ 2. canonical hostname
○ 3. FTP (file transfer protocol)
○ 4. Application-layer protocol

Question 29

The book describes relay1.west-coast.eneterprise.com (a hostname which contains the IP) as a

Choose one answer.

○ 1. canonical hostname
○ 2. conditional GET
○ 3. Time to Live
○ 4. distribution time

Question 30

The general format of an HTTP request message contains:

Choose one answer.

○ 1. GET, POST, HEAD, PUT, and DELETE
○ 2. A status line, six header lines, and then an entity body
○ 3. A request line, header lines, and an entity body
○ 4. user agents, mail servers, and SMTP

Question 31

The general format of an HTTP response message contains _____.

Choose one answer.

○ 1. user agents, mail servers, and SMTP
○ 2. A status line, six header lines, and then an entity body
○ 3. A request line, header lines, and an entity body
○ 4. host aliasing, mail server aliasing, load distribution

Question 32

The mechanism by which HTTP allows a cache to verify that its objects are up to date is called a:

Choose one answer.

○ 1. cookie
○ 2. conditional GET
○ 3. round-trip time
○ 4. Time to Live

Question 33

The six header lines of an HTTP response message are _____.

Choose one answer.

○ 1. A request line, header lines, and an entity body
○ 2. user agents, mail servers, and SMTP
○ 3. USER, PASS, LIST, RETR, STOR
○ 4. Date, Server, Last-Modified, Content-Length, Content-Type

Question 34

This protocol uses UDP and can be thought of as the "Internets Directory Service."

Choose one answer.

○ 1. 8
○ 2. NF/u
○ 3. 2
○ 4. DNS

Question 35

True of False: FTP must maintain state about the user.

Choose one answer.

○ 1. true
○ 2. false

Question 36

True or False: an HTTP server is stateless

Choose one answer.

○ 1. false
○ 2. true

Question 37

True or False: IMAP allows the user to view message instead of download them from a hierarchy on a remote server.

Choose one answer.

○ 1. True
○ 2. 8
○ 3. cookie
○ 4. DNS

Question 38

Typical commands issued in SMTP

Choose one answer.

○ 1. HELO, MAIL FROM, RCPT TO, DATA, and QUIT
○ 2. (Name, Value, Type, TTL)
○ 3. user agents, mail servers, and SMTP
○ 4. USER, PASS, LIST, RETR, STOR

Question 39

What are the two responses in POP3?

Choose one answer.

○ 1. data center
○ 2. IP address
○ 3. +OK and -ERR
○ 4. ICMP and POP3

Question 40

What are the types of a DNS RR?

Choose one answer.

○ 1. Type A which has the IP address and Type NS which knows the authoritative server to get the IP, Type CNAME which is a canonical hostname for the aliasing, and type MX the canonical name of a mail server that has an alias hostname.
○ 2. A status line, six header lines, and then an entity body
○ 3. 1 RTT for hand shake + 1 RTT for web page + 20 RTT for each referenced object
○ 4. 13 Root DNS servers to top level DNS servers to authoritative DNS servers

Question 41

What is the minimum total distribution time for P2P?

Choose one answer.

○ 1. UDP
○ 2. USER, PASS, LIST, RETR, STOR
○ 3. max{F/u,F/dmin,NF/(u+sum of rate of peers)}
○ 4. Name, Value, Type, TTL

Question 42

When requesting a web page with 10 referenced objects how many RTTs are needed with persistent connections?

Choose one answer.

○ 1. 1 RTT for hand shake + 1 RTT for web page + 20 RTT for each referenced object
○ 2. A status line, six header lines, and then an entity body
○ 3. It does so in 3 phases: authenticate phase, retrieve phase, update phase
○ 4. 1 RTT for hand shake + 1 RTT for web page + 10 RTT for each referenced object

Question 43

Which of the following is a common replies in FTP?

Choose one answer.

- ○ 1. 331 Username OK, password required
- ○ 2. USER, PASS, LIST, RETR, STOR
- ○ 3. 425 Can't open data connection
- ○ 4. 125 Data connection already open; transfer starting
- ○ 5. A request line, header lines, and an entity body
- ○ 6. 452 Error writing file
- ○ 7. A status line, six header lines, and then an entity body

Question 44

Which of the following is a formula to convert a MB to a B?

Choose one answer.

- ○ 1. 1024 bps
- ○ 2. 2
- ○ 3. true
- ○ 4. 1024^2 B

Question 45

Which of the following is a type of HTTP connection that keeps connections open after a request to the server?

Choose one answer.

- ○ 1. port number
- ○ 2. non-persistent connections
- ○ 3. distribution time
- ○ 4. persistent connections

Question 46

Which of the following is a type of HTTP connections that closes after each request from the client.

Choose one answer.

- ○ 1. distribution time
- ○ 2. round-trip time
- ○ 3. non-persistent connections
- ○ 4. Content Distributed Network

Question 47

Which of the following is a typical HTTP response status type?

Choose one answer.

- ○ 1. 1 RTT for hand shake + 1 RTT for web page + 20 RTT for each referenced object
- ○ 2. A status line, six header lines, and then an entity body
- ○ 3. 200 OK, 301 Moved Permanently, 400 Bad Request, 404 Not Found, 505 HTTP Version Not Supported
- ○ 4. A request line, header lines, and an entity body

Question 48

Which of the following is the differences between HTTP and SMTP?

Choose one answer.

- ○ 1. A status line, six header lines, and then an entity body
- ○ 2. TCP (Transmission control protocol)
- ○ 3. API (Application Programming Interface)
- ○ 4. HTTP is a pull protocol, SMTP is a push protocol, SMTP messages must be 7-bit ASCII, HTTP encapsulates images and other media types while SMTP places all objects into one message

Question 49
Which protocol is the underlying layer of HTTP and is said to be a connection-oriented service.
Choose one answer.
○ 1. FTP (file transfer protocol)
○ 2. TCP (Transmission control protocol)
○ 3. SMTP (Simple mail transfer protocol)
○ 4. UDP (User datagram protocol)

Question 50
What does TTL stand for?

_____