

Final Exam

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Internet technology

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Answers to the Question no-(6)(a)

Differentiate between HTML and DHTML:

- * HTML stands for Hypertext Markup Language, where DHTML stands Dynamic Hypertext Markup Language.
- * HTML is a language where DHTML is a Technology.
- * HTML is a collection of tags where in DHTML, its collection of Technology.



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- * DHTML sites are dynamic in nature and HTML is static.
- * any styles and scripts called as HTML whenever HTML, CSS, DOM and scripts called as DHTML.
- * HTML sites will be slow upon client-side Technologies.

Answer to the Question no-(6) (b)

Important of search engines: it is important because with over 8 billion web pages available in search engine,

Search engine is a software system that designed to search for information on the world wide web.

* the keywords to search for documents
that relate to these keywords and
then puts the result.

Search engine can filter the information
that is on the Internet and transform
it into results that each individual can
easily access and use within the matter
of seconds.

So that search engine is very important
for Internet searching.

Answer to the Question no - (3)(a)

Def: A cipher (E, D) over (K, M, C) has perfect secrecy if $\forall m_0, m, E_m(m_0) = E_m(m)$ and $\forall c \in C$

$$\Pr[E(K, m_0) = c] = \Pr[E(K, m_1) = c] \text{ where } K \in K$$

\Rightarrow Given c cannot tell if msg is m_0 or m_1 ,
(For all m_0, m_1 ,

\Rightarrow most powerful adv learns nothing about
PT from CT

\Rightarrow no CT only attack !! (but other attack
possible)
GTD has perfect secrecy.

$$XMR: \Pr[E(K, m) = c] = \frac{\text{# Keys KEK st. } E(K, m)}{|M|}$$

if $\forall m, c \in C : E(K, m) = c \} = \text{const}$
 \Rightarrow cipher has perfect secrecy

for OTP. Now, i.e. if $E(K, m) = c$

$$\Rightarrow K \oplus m = c \Rightarrow K = m \oplus c$$

$$\Rightarrow (KEK) : E(K, m) = c \} = 1$$

OTP has perfect secn.

Answer to the Question no — (Q8b)

- ① Server push technology: push an
- Server push technology describes a style of internet based communication where the result of transaction is initialized from the server.

[3x(b)]

(11)

short pulling and long pulling.

Short pulling:

- * Client polls at regular and short intervals.
- * & we've lots reserves in server with no order execution
- * Easy, but not really, what we are looking

Long pulling:

- * Longer intervals, Each time something is returned from the server, a new request is started.
- * carrying the overhead of http

Answer to the Question no - (5)(a)

Challenges for semantic web 3.0

- ① vastness
→ web and security issue with cloud computing.
- ② Deceit → intentionally misleading the information
- ③ inconsistency
→ stands for logical contradictions.
- ④ uncertainty
→ System cannot easily classify.
- ⑤ vagueness.
→ Information available in forms like RDF, XML.

Answer to the Question no - (5)(b)

Characteristics of web 3.0.

- ① linked Data & hyperdata.
→ data objects are linked to other object.



- ② Large hypertext data sets
→ a community Effort to extract structured information.

Answer to the Question no — (2) (a)

Vigenere cipher algorithm:

Text	T	H	I	N	K	A	B	O	U	T	I	T
Key	V	I	N	T	A	G	E	V	I	N	T	A

For this Text and Key the ciphertext is

P. Q. W H L H G K D H C U (Ans)

(ii) Answer to the Question no-(2) (b)

Difference between symmetric and asymmetric:

Symmetric

- ① uses a single key.
- ② we can share among people
- ③ we can receive the message.

Asymmetric

- ① uses a pair of public key.
- ② we can share.
- ③ private key to encrypt and decrypt message when communicating.

Answer to the Question no-(1)

① Authentication: The process to proving or validating the Identification something like: login system using password accessing any information with access key

② Integrity: Integrity is refer to the accuracy and completeness of data, To prevent data control security integrity are designed to prevent data from being modified or misused by an ~~unauthor~~ unauthorized party.

Like: Data make encrypted to make secure

③ Verifiability: After making data secure like encrypted the process to decrypt the data with desire key is the verifiability of data that

⑩ Non-repudiation: Non-repudiation is the assurance that someone cannot deny the validity of something. That's proof of the origin of data and the integrity of the data, in other words non-repudiation makes very difficult to deny who where a message came from. Like: Digital signature needs make payment online.

⑪ Cryptography: Cryptography is the service of protecting information by transforming data into a ~~secure~~ secure formate.

Like: cryptography with pure data using some technique changing the data into a formate that can't be required by unauthorized user.

Answer to the Question no (7)

I) Crawler based:

→ these search engines use A "SPIDER" or a "CRAWLER" to search the internet

Ex: google, yahoo,

II) Directory base:

→ Human Editions to create their listing on the database.

Ex: yahoo directory, open directory

III) Hybrid search engines:

→ are both crawler and directory based searches.

Ex: yahoo.com, google.com,

IV) meta search engines:

→ these transmit user supplied key-words simultaneously to several individual search engines to actually carry out the search.

→ Search result Returned from All the
Search engines can be integrated.
Duplicates can be Eliminated and Only
Search result Implemented.

Ex: DOGPILE, METACRAWLER