Question list - CN

Lecture-1

1) No Question.

lecture-2 (Data Link layer)

1) What is the draw back of byte count method?
2) Give the principle of flag byte with ~~byte~~ byte stuffing with appropiate diagram, what is its drawbacks and how ~~can~~ it ~~be~~ can be overcomed?
3) How ambiguity of consecutive 5 1's is avoided in flag bit stuffing method.
4) Give the worst case of byte stuffing and bit stuffing.
5) Give the steps of determining transmission polynomial.
6) Example on CRC.
7) Determination of error polynomial of single bit error and multiple bit errors.

8) How to avoid ambiguity of single bit, 2-bit, add number of bits and burest error in CRC?

9) What will happen when $E(x) = G(x)$

10) Design of dividing circuit design. (no table)

11) Why flow control is necessary?

12) Give the basic principle of stop and wait flow control.

13) Show the timing diagram of stop and wait flow control.

14) Why transmission time is largere than propagation delay and the other one, $t_2 > t_1$ and $t_2 < t_1$.

15) Show the coept of sliding window protocol with few steps.

16) Represent sliding window protocol against window size and its acknowledgement.

17) Derive maximum throughput of pure ALOHA and slotted ALOHA.

18) Example on pure and slotted ALOHA.

19) Explain CSMA/CD with appropriate diagram.

20) Compare 1, non, p persistent CSMA.

21) Give basic principle of Token ring access system.

22) Compare exhaustive service, gated service and limited service.

23) Steps of binary exponential backoff algo.

Lecture - 3 (Network Layer)

1) Show the flow ~~control~~ of IP packet through heterogenous LAN.

2) Draw the complete version IPV4 packet.

3) Mention the function of differentiated service.

4) Identification of function.

5) Fragment offset.

6) Time to - live

Describe briefly

7) Give an example of calculative header checksum.

8) Describe flow label of IPV6 header.

Lecture - 4 (IP Address)

No question.

The Network Layer Lec-5.

1) Problem on routing table of connectionless service

2) Problem on routing table of connection oriented service. (Slide-8)

3) Compare connectionless and connection oriented / datagram and virtual circuit. (Slide-10)

4) Problem on sink tree under optimality principle (Slide-16

5) n n shortest path ALGO (Slide-22)

13/06/22

1) What's the remedial measures against huge duplicance of packets. (Slide-23)

2) Give 2 real life example of flooding (Slide-25)

3) Problem on distance routing (29)

4) Explain count to infinity problem

5) How good news propagates under distance vector algo

15/06/22

Transport Layer

1) Give the basic principle of 3 way handshake in connection establishment under trasport layer (slide 10)

2) How to resolve old duplicate packet under this protocol (slide 1

3) How ~~both~~ CR and data duplication both arre protected under this protocol (12)

4) Compare asymmetric and symmetric release of connection (13)

5) What is the problem of ass asymmetric release of computer communication (14)

6) Give basic principle of 3 way handshake in connection Release - (Slide 17)

7) Give 3 (scenerio) adverse situation to tackle by this protocol (18, 19, 20 - just diagram)

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Network_security

20.06.22

1) Define Plain text and cipher text (4)

2) Cryptography, Cryptanalysis, cryptology (5)

Defn.

3) Give the idea of active and passive intruder (6)

4) " " concept of substitution cipher with example (11,12)

5) " " idea " transposition cipher " " (15,16)

6) " " concept " asymmetric key Cryptography (18,20)

7) Give the ~~sate~~ steps of RSA Algo with example (23).

22/06/22

1) Compare Conventional and Digital Signature in concept of inclusion, verification, relationship and Duplicity (27,28)

2) How to implement Non-repudiation on digital signature (30-32)

3) What is the problem of trusted authority? How it can be overcomed? (33,34)

4) What are the properties of Message Digests? Why it is preferable in digital Signature (slide 36)

5) Show the complete arrangement of SHA-1 in digital Signature (37,39).

The Application Layer

27/06/22

1) Why DNS is essential in internet? (4 Slide এর পরের 2 para

2) Example - 2 study (11-13)

3) Give the steps of DNS Name Resolution (14, 15).

04/07/22

1) Give the steps of simple Mail Transfer Protocol (SMTP) for sending and receiving email with appropriate diagram (28, 29)

2) Give the basic concept of POP (30)

3) " " steps of web browsing from client side (38, 39)

4) What are the benefits of web caching. Give the process of web caching. (49)

5) Compare Telnet and secure shell (57)