

13.09.18.

1

1.1 ଗ୍ରନ୍ଥ ସମ୍ପର୍କ ।

1.4 → Security service (list). Computer system security service.  
Attack surface.

A Model for network security

2

3.1 Cryptanalysis vs Brute force.

Table. Simplified cipher model

Substitution cipher → Caesar, monoalphabetic.

One time pad → random. (publicly secure) (କେବଳ brute force ମାଧ୍ୟମରେ ଉଦ୍ଧାର କରିବା ସମ୍ଭବ)

transposition.

One  
ସମ୍ଭବ ସମ୍ଭାବନା  
possible

A  
↓  
i

Y  
↓  
x

Steganography

4

stream block cipher

Confusion, diffusion ଏବଂ ଏହା କିପରି କରାଯାଏ ।

DES, SDES (pdf).

5

6

AES ଗ୍ରନ୍ଥ structure ଏବଂ structure.

transformation funct ଏବଂ

6.4 Key expansion Algorithm.

Avalanche effect.

7

Double DES, problem କି ?

Triple " , 2ଟି password  
ଏବଂ " " "



1-7 → 3 के set } A बाकि-13  
8-9 →

आ Mode table 7.1 कायम use 231,  
किताब काद को,

RNG Use of 8 random no कि कायम दाकार,  
कथन बलव " "

TRNG

PRNG Requirement

8.4 Stream cipher def, कथन use 231.

RC4 कि ? description.

9  
RSA idea.

" requirement.

Conventional vs public-key

RSA description + calculation.

10 अम



## Set-A

1. Feistel structure used in  $\rightarrow$  DES, SDES.

2.

3. Cryptanalysis is used to - find a better sol<sup>n</sup>

4. In asymmetric key cryptography, the pri key is kept by - sender

5. RC4 is - Random no generator, stream cipher

6. A digital signature is - easy to produce

7. Kerberos v4 uses - DES

8. How many round keys are generated in the AES algorithm - 10, 12, 14

9. No of key used in 3DES is  $\rightarrow$  2, 2

10. Hash func  $\rightarrow$  use  $\rightarrow$  encryption.

Set-B.



11  
Hash  
11.1 Application  
MAC  $\rightarrow$  use, definition

11.3 Req and security

Table 11.1 Attack brute force attack  
Preimage  
Collision resistant  
Cryptography

SHA-512 description

12 Msg Authen Code

Requirement

Msg Authen Function

Uses MAC

MAC  $\rightarrow$  Msg Auth-Code

MAC

Requirements

Security of MAC

HMAC  $\rightarrow$  Algo.

Security of HMAC

12.9 PRNG based on Hash func.

Hash function is generally random no. seq.

Digital signature কি? কী use করে ?

DSA গুরুত্ব

14

14.1 KDC idea  
Session key lifetime.



14.2 Sym key dis using asym key  
See " " with confidentiality

### 14.3 Distribution of

15

Mutual authentication

Users " for

Time stamp for

Kerberos

" 4 vs K-5

475 page

Email Protocols ~~16~~ 18

SMTp

SMTP  
 MIME কি চিনিম? Binary data পরিচালনা যায়।  
 S/MIME কিভাবে Security provide করে।

SMIME ফিচার Security provide করে।