### **COMPUTER SECURITY**

**Question Bank** 

Helping Others Have Special taste

#### Lecture-4

### **Questions**

- 1) ..... performs various substitutions and transformations on the plaintext.
  - a) Decryption algorithm
  - b) Encryption algorithm
  - c) Secret key
  - d) Public key
- 2) Is also an input to the encryption algorithm?
  - a) Secret key
  - b) public key
  - c) Private key
  - d) None
- 3) The scrambled message produced as output.
  - a) Plaintext
  - b) Ciphertext
  - c) Secret key
  - d) None
- 4) It takes the ciphertext and the key to produce the original text.
  - a) Decryption algorithm
  - b) Encryption algorithm
  - c) Secret key
  - d) Public key
- 5) Are algorithms for cryptography that use the same cryptographic keys for both encryption of plaintext and decryption of ciphertext.
  - a) Symmetric-key algorithms
  - b) Asymmetric-key algorithms
  - c) A&B
  - d) None

- 6) From the following sentences what is important characteristics that enable us to use a bruteforce cryptanalysis?
  - 1 There are only 25 keys to try.
  - 2 The encryption and decryption algorithm are known.
  - 3 The language of the ciphertext is known and easily recognizable.
  - 4 The language of the plaintext is known and easily recognizable. Chose the correct answer.
  - a) 1&2&3
  - b) 2&3&4
  - c) 1&2&4
  - d) 1&3&4
- 7) What is the encryption technique that uses a random key and fixed substitution over the entire message?
  - a) Caesar Cipher
  - b) Playfair Cipher
  - c) Monoalphabetic Cipher
  - d) Hill Cipher
- 8) Based on the use of 5x5 matrix of letters constructed using a keyword.
  - a) Caesar Cipher
  - b) Playfair Cipher
  - c) Monoalphabetic Cipher
  - d) Hill Cipher
- 9) Encoding in Playfair cipher, if the letters appear in the same row of the table, we replace them with the letters on there .......... respectively.
  - a) Right
  - b) Left
  - c) Above
  - d) Below

<ul> <li>10)Encoding in Playfair cipher, if the letters appear in the same column of the table, we replace them with the letters on there respectively.</li> <li>a) Right</li> <li>b) Left</li> <li>c) Above</li> <li>d) Below</li> </ul>
<ul> <li>11)We use lists to implement monoalphabetic cipher algorithm.</li> <li>a) 3</li> <li>b) 1</li> <li>c) 2</li> <li>d) 0</li> </ul>
<ul> <li>12)What type of attacks used to decrypt Symmetric encryption.</li> <li>a) DOS</li> <li>b) Man-in-the-Middle</li> <li>c) Brute force</li> <li>d) DDOS</li> </ul>
13)What type of attacks used to decrypt Asymmetric encryption.  a) DOS  b) Man-in-the-Middle  c) Brute force d) DDOS
14)How many types of keys used in Asymmetric encryption. a) 1 b) 2 c) 3 d) 0



15)How many types of keys used in Symmetric encryption.  a) 1 b) 2 c) 3 d) 0
16) Encrypt the word <i>alphabet</i> using a Caesar cipher with a shift of 3
a) DVSDULQV b) DOOFOHDU c) DOSKDEHW d) DORQHBHV
17) The following word was encrypted using a Caesar cipher with a shift of 2: ecguct. What word is it?
<ul> <li>a) julius</li> <li>b) caesar</li> <li>c) romans</li> <li>d) cipher</li> </ul>
18) A cipher is
<ul> <li>a) a)a person who makes up secret codes</li> <li>b) b)an algorithm that is used to scramble text so that it can be passed in secret</li> <li>c) c)a lock that can be used to lock a message in a lock box</li> <li>d) any puzzle, such as a crossword or Sudoku puzzle</li> </ul>
19) A Caesar cipher is an example of a
<ul> <li>a) transposition cipher</li> <li>b) bimodal cipher</li> <li>c) substitution cipher</li> <li>d) substantial cipher</li> </ul>

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## 20) In Cryptography, original message, before being transformed, is called

called				
<ul><li>a) Simple Text</li><li>b) Plain Text</li><li>c) Cipher Text</li><li>d) Filled Text</li></ul>				
21) An encrypt	ion algorithm transforms plain text into:			
<ul><li>a) Cipher text</li><li>b) Simple Text</li><li>c) Empty Text</li><li>d) Plain Text</li></ul>				
22) A(n)	algorithm transforms cipher text to plain text.			
<ul><li>a) Encryption</li><li>b) Decryption</li></ul>				
23) The operates.	_ is a number or a set of numbers on which the cipher			
<ul><li>a) secret</li><li>b) cipher</li><li>c) key</li><li>d) none of the n</li></ul>	nentioned			
24) Encrypt the	word Lagoon using a Caesar cipher with a shift of -3			

- a) hwckkj
  - b) odjrrq
- c) jyemml
- d) ixdllk

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## 25) Monoalphabetic ciphers are stronger than Polyalphabetic ciphers because frequency analysis is tougher on the former.

**Explanation:** Monoalphabetic ciphers are easier to break because they reflect the frequency of the original alphabet. advertisement

- a) True
- b) False
- 26) Which of the following is a type of substitution cipher?
- a) Monoalphabetic cipher
- b) transposition cipher
- c) transportation cipher
- d) transforming cipher
- 27) What will be the ciphered text for the input string "sanfoundry" with key string as "code" to the program of keyword cipher?
- a) **SCMBNUMERY**
- b) **SSCMBNUMERY**
- c) NIFO
- d) NILO
- 28) Which of the following was the first diagram substitution cipher?
- a) autokey cipher
- b) hill cipher
- c) one time pad cipher
- d) playfair cipher
- 29) Playfair cipher is harder to crack than keyword cipher.
- a) True
- b) False

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#### 30) What is the alternative name of playfair cipher?

- a) Wadsworth's cipher
- b) Wheatstone playfair cipher
- c) Playfair rectangle
- d) Wheatstone cipher

# 31) What will be the plain text corresponding to cipher text "BPKYFS" if playfair cipher is used with keyword as "SECRET" (assuming j is combined with i)? Note: this is a 'Sanfoundry Question'

- a) INDIAN
- b) WORLD
- c) DOLLAR
- d) HELLO

## 32) What is the rule for encryption in playfair cipher if the letters in a pair are identical?

- a) then that pair is neglected
- b) a null is added in between the letters
- c) one of the identical letter is replaced by some other letter
- d) then both of the letters are replaced by the letter appearing just next in the row

## 33) What is the rule for encryption in playfair cipher if the letters in a pair appear in same row?

- a) they are replaced by the letter appearing immediately below them respectively
- b) they are replaced by the letter appearing immediately right to them respectively
- c) they are replaced by the letter at the corner of the row
- d) that pair is neglected

- 34) What will be the ciphered text if the string "SANFOUNDRY" is given as input to the code of playfair cipher with keyword as "SECRET" (assuming j is combined with i)?
- a) ZHQAPNPAFR
- b) AHQAPNPAFR
- c) HAQAPNPAFR
- d) QHAAPNPAFR
- 35) What is the rule for encryption in playfair cipher if the letters in a pair appear in same column?
- a) they are replaced by the letter appearing immediately below them respectively
- b) they are replaced by the letter appearing immediately right to them respectively
- c) they are replaced by the letters at the corner of the row
- d) that pair is neglected
- 36) What is the rule for encryption in playfair cipher if the letters in a pair does not appear in same row or column?
- a) they are replaced by the letter appearing immediately below them respectively
- b) they are replaced by the letter appearing immediately right to them respectively
- c) they are replaced by the letter of the same row at the corner of the rectangle defined by the original pair respectively
- d) that pair is neglected



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### **Answers**

Question	Answer
1	В
2	A
3	В
4	A
5	A
6	С
7	С
8	В
9	A
10	D
11	С
12	В
13	В
14	В
15	A
16	С
17	В
18	В
19	С
20	В
21	A
22	В



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23	С
24	В
25	В
26	А
27	А
28	D
29	A
30	В
31	С
32	В
33	В
34	В
35	А
36	С

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