Chapter 4.1

Importance of Cyber Laws

Aim

To elucidate the mechanism of cyber law, their importance and cyber security

Instructional Objectives

After completing this chapter, you should be able to:

- Explain forensics process and importance of cyber law

- Outline the procedure for evidence handling

- Explain significant factors of cyber security especially against Corporate espionage

Forensics Process and Importance of Cyber Law

Introduction to Cyber Law

Cyber Law is the law that controls cyber space. Cyber space is a very wide term which includes computers, software, networks, data storage devices (such as hard disks, USB disks etc.)

Cyber Crimes

Data Protection and Privacy

Electronic and Digital Signatures

Intellectual Property

Digital Forensic Process

Digital Forensic process is a renowned scientific and forensic process used for digital forensics investigations.

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                    ┌─────────────────────┐
                    │  Steps in Digital   │
                    │  Forensic Process   │
                    └─────────────────────┘
        ┌───────────────────┼───────────────────┐
┌───────────────┐   ┌───────────────┐   ┌───────────────┐
│  Acquisition  │   │   Analysis    │   │   Reporting   │
└───────────────┘   └───────────────┘   └───────────────┘
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Importance of Cyber Law

The need for cyber law originates as it is extremely difficult for a conventional law to cope with cyberspace. It is:

Not deterred by jurisdictional boundaries.

Handles huge amount of traffic volumes every second.

Completely open to participation and does not have restriction.

Gives enormous potential to its members to be impersonal.

Offers economic efficiency that was never seen before.

Targeting Electronic Information as main source.

Theft of corporate information is easily covered by traditional penal provisions.

Quiz / Assessment

1) _____ are unlawful actions where the computer is used as a tool or a target.

   a) Petty crimes
   b) Theft
   c) Espionage
   d) Cyber crimes

Quiz / Assessment

2) Artistic creations of human mind (story, song, painting etc.) are called as _____.

    a) Private property
    b) Intellectual property
    c) Imaginary property
    d) Public property

Quiz / Assessment

3) Computer software, computer source code, websites, cell phone content, Software and source code licenses etc. are covered under _____ law.

   a) Trademark law
   b) Semiconductor law
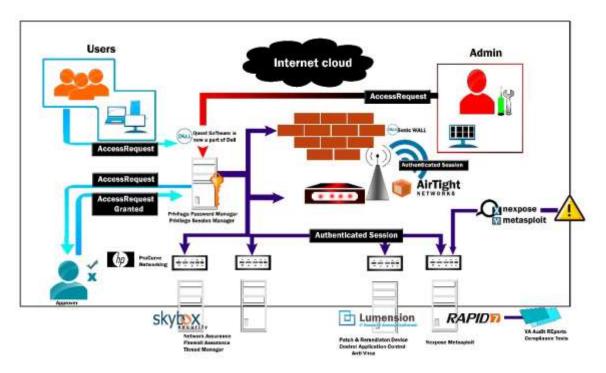   c) Copyright law
   d) Patent law

Significant Factors of Cyber Security Especially Against Corporate Espionage

Cyber Security Risk

Cyber security also known as information technology security focuses on protecting computers, networks, programs and data from unintended or unauthorized access, change or destruction.
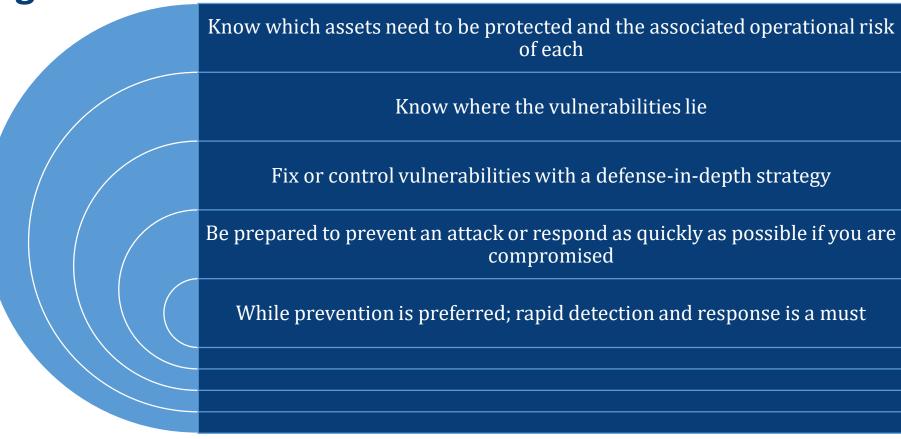

Cyber Security

Significant Factors of Cyber Security Against Corporate Espionage

Know which assets need to be protected and the associated operational risk of each

Know where the vulnerabilities lie

Fix or control vulnerabilities with a defense-in-depth strategy

Be prepared to prevent an attack or respond as quickly as possible if you are compromised

While prevention is preferred; rapid detection and response is a must

Quiz / Assessment

1) _____ is the weakest link in cyber security.

    a)   Absence of anti-virus software
    b)   The human factor
    c)   Hackers
    d)   Virus infected computers

Quiz / Assessment

2) Cyber security is also known as_____.

a) Information technology security
b) Cyber crime
c) Online security
d) Anti-virus

Quiz / Assessment

3) In order to provide employees with better working conditions and more flexible environment, companies often follow _____ policy.

    a)   Bring Your Own Food
    b)   Confidentiality clause
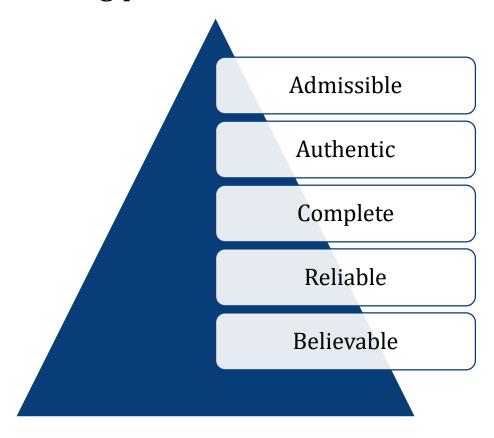   c)   Bring Your Own Device
    d)   Leave with pay

Procedure for Evidence Handling

Principles for Evidence Handling Procedure

The 5 rules of Evidence handling procedure are as follows:

Admissible

Authentic

Complete

Reliable

Believable

Quiz / Assessment

1) Information that is stored or transmitted in binary form and presentable in court is called _____.

   a) Crucial evidence
   b) Cyber evidence
   c) Digital evidence
   d) Proof

Quiz / Assessment

2) _____ are used to ensure the integrity of the forensic process.

    a)   Binary codes
    b)   Hash codes
    c)   Finger prints
    d)   Asterisk codes

Quiz / Assessment

3) When a computer system is seized, experts need to _____.

    a) Destroy the system and erase all traces of it
    b) Protect the system and components so it can be used for prosecution
    c) Hand it over to the higher authorities
    d) Open it and scan for viruses

Activity

Offline/Online Activity

Online/Offline Activity (30 min)

- Identify the cybercrimes and related cyber laws for the crimes in India.
- Discuss on the things that you need to know about cyber security in small businesses.

Note: Refer Table of Content for the activities

Summary

o With the advances in technology and the rise of the internet, cyber-crimes have evolved in unexpected ways.

o Cyber law is evolving constantly; there are newer ways to break the law online.

o Nowadays, every time a person is online, he can be a target of a cybercriminal.

o There is an immediate need for changes and updates in cyber law due to increasing instances of cybercrime.

o Law must also find a balance between protecting citizens from crime, and infringing on their rights.

e-References

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- Cybersecurity 101. (n.d.). Retrieved May 4, 2016, from https://www.dhs.gov/sites/default/files/publications/cybersecurity-101_4.pdf

- Evidence handling manual. (n.d.). Retrieved May 4, 2016, from http://www.crime-scene-investigator.net/evidencecollectionmanual_MT.pdf

External Resources

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2. Nelson, B., Phillips, A., &Steuart, C. *Guide to Computer Forensics and Investigations, Fourth Edition*. USA: Cengage Learning. (2010).

3. Philipp, A., Cowen, D., & Davis, C. *Hacking Exposed Computer Forensics, Second Edition*. New York: McGraw-Hill. (2010).