



# INTRODUCTION TO CYBER SECURITY

## (BETCK105/205 I)

### NOTES

For First/Second Semester B.E[VTU/CBCS, 2023-2024] Syllabus



## Syllabus

**Course Title:** Introduction to Cyber Security

**Course Code:** : BETCK105I/205

### MODULE-I

**Teaching Hours**

**Introduction to Cybercrime:** Cybercrime: Definition and Origins of the Word, Cybercrime and Information Security, Who are Cybercriminals? Classifications of Cybercrimes, An Indian Perspective, Hacking and Indian Laws., Global Perspectives  
Textbook:1 Chapter 1 (1.1 to 1.5, 1.7-1.9)

**8**

**Blooms Taxonomy:** L1 – Remembering, L2 – Understanding

### MODULE-II

**Teaching Hours**

**Cyber Offenses:** How Criminals Plan Them: Introduction, How criminals plan the attacks, Social Engineering, Cyber Stalking, Cybercafe & cybercrimes. Botnets: The fuel for cybercrime, Attack Vector. Textbook:1 Chapter 2 (2.1 to 2.7)

**8**

**Blooms Taxonomy:** L1 – Remembering, L2 – Understanding

### MODULE-III

**Teaching Hours**

**Tools and Methods used in Cybercrime:** Introduction, Proxy Servers, Anonymizers, Phishing, Password Cracking, Key Loggers and Spyways, Virus and Worms, Trozen Horses and Backdoors, Steganography, DoS and DDOS Attacks, Attacks on Wireless networks.  
Textbook:1 Chapter 4 (4.1 to 4.9, 4.12)

**8**

**Blooms Taxonomy:** L1 – Remembering, L2 – Understanding

### MODULE-IV

**Teaching Hours**

**Phishing and Identity Theft:** Introduction, methods of phishing, phishing, phising techniques, spear phishing, types of phishing scams, phishing toolkits and spy phishing, counter measures, Identity Theft Textbook:1 Chapter 5 (5.1. to 5.3)

**8**

**Blooms Taxonomy:** L1 – Remembering , L2 – Understanding

### MODULE-V

**Teaching Hours**

**Understanding Computer Forensics:** Introdction, Historical Background of Cyberforensics, Digital Forensics Science, Need for Computer Forensics, Cyber Forensics and Digital Evidence, Digital Forensic Life cycle, Chain of Custody Concepts, network forensics. Textbook:1 Chapter 7 (7.1. to 7.5, 7.7 to 7.9)

**8**

**Blooms Taxonomy:** L1 – Remembering, L2 – Understanding

SL No	Title Of The Book	Name Of the Author/s	Name Of the Publisher	Edition and Year	ISBN
1	“Cyber Security: Understanding Cyber Crimes, Computer Forensics And Legal Perspectives”	Sunit Belapure and Nina Godbole	Wiley India Pvt Ltd	First Edition (Reprinted 2018)	978-81- 265-21791, 2011,



## MODULE 1. INTRODUCTION TO CYBERCRIME

### List of Topics:

- Introduction
- Cybercrime: Definition and Origins of the Word
- Cybercrime and Information Security
- Who are Cybercriminals?
- Classifications of Cybercrimes
- Cybercrime: The Legal Perspectives
- Cybercrimes: An Indian Perspective
- Cybercrime and the Indian ITA 2000
- A Global Perspective on Cybercrimes
- Cybercrime Era: Survival Mantra for the Netizens

### INTRODUCTION

- “Cyber security is the protection of internet-connected systems, including hardware, software and data, from cyber attacks”.
- “Cybersecurity” means protecting information, equipment, devices, computer, computer resource, communication device and information stored therein from unauthorized access, use, disclosure, disruption, modification or destruction.
- Almost everyone is aware of the rapid growth of the Internet.
- Given the unrestricted number of free websites, the Internet has undeniably opened a new way of exploitation known as cybercrime.
- These activities involve the use of computers, the Internet, cyberspace and the worldwide web (WWW).
- Interestingly, cybercrime is not a new phenomena; the first recorded cybercrime took place in the year 1820.
- It is one of the most talked about topics in the recent years.
- Based on a 2008 survey in Australia, the below shows the cybercrime trend