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**BTECH**  
**(SEM IV) THEORY EXAMINATION 2023-24**  
**CYBER SECURITY**

**TIME: 3 HRS****M.MARKS: 70**

**Note:** 1. Attempt all Sections. If require any missing data; then choose suitably.

**SECTION A****1. Attempt all questions in brief.****2 x 7 = 14**

a.	How does cybercrime differ from traditional crime?
b.	What are the common profiles of cybercriminals in terms of demographics and skills?
c.	How do registry settings differ between mobile operating systems such as Android and iOS?
d.	How are financial institutions adapting to the increase in mobile credit card fraud?
e.	What is a keylogger, and how does it capture keystrokes?
f.	What is digital forensics, and how does it differ from traditional forensic science?
g.	What is a patent, and what are the criteria for obtaining one in India?

**SECTION B****2. Attempt any three of the following:****7 x 3 = 21**

a.	What tools and technologies are essential for protecting against cybercrime?
b.	How do multi-factor authentication (MFA) systems work on mobile devices?
c.	What is steganography, and how is it used to conceal information?
d.	What are the technical challenges faced by computer forensics professionals?
e.	How can trademark infringement be prevented and remedied under Indian law?

**SECTION C****3. Attempt any one part of the following:****7 x 1 = 7**

(a)	What are the typical stages of a cyber-attack?
(b)	How can botnet activities be detected and disrupted by cybersecurity professionals?

**4. Attempt any one part of the following:****7 x 1 = 7**

(a)	How can users detect and respond to phishing attacks on their mobile devices?
(b)	What are the key components of a comprehensive mobile security policy for organizations?

**5. Attempt any one part of the following:****7 x 1 = 7**

(a)	What is the difference between a DoS (Denial of Service) attack and a DDoS (Distributed Denial of Service) attack?
(b)	What is an SQL injection attack, and how does it exploit vulnerabilities in web applications?

**6. Attempt any one part of the following:****7 x 1 = 7**

(a)	What are the stages of the digital forensics life cycle?
(b)	How do investigators capture and analyze network traffic during a network forensics investigation?

**7. Attempt any one part of the following:****7 x 1 = 7**

(a)	What are the common intellectual property issues faced in the digital age?
(b)	What are the penalties and legal consequences for cybercrimes under Indian law?