

**FUNDAMENTALS OF CYBER SECURITY  
(INF3133)**

**Time Allotted : 2½ hrs**

**Full Marks : 60**

*Figures out of the right margin indicate full marks.*

*Candidates are required to answer Group A and  
any 4 (four) from Group B to E, taking one from each group.*

*Candidates are required to give answer in their own words as far as practicable.*

**Group – A**

1. Answer any twelve:

**12 × 1 = 12**

*Choose the correct alternative for the following*

- (i) An act of defacement of a website is
  - (a) Techno-art
  - (b) Techno-vandalism
  - (c) Techno-craft
  - (d) None of these
- (ii) An act of breaking into phone and other communication systems is
  - (a) Hacking
  - (b) Cracking
  - (c) Phreaking
  - (d) None of these
- (iii) What is the speed of Bluetooth 2.0?
  - (a) 1 Mbps
  - (b) 3 Mbps
  - (c) 10 Mbps
  - (d) 50 Mbps
- (iv) What uses VoIP technology?
  - (a) Smishing
  - (b) Mishing
  - (c) Vishing
  - (d) Both (b) and (c)
- (v) What comprises several classes of scam software with malicious payloads?
  - (a) Scareware
  - (b) Scamware
  - (c) Malware
  - (d) Ransomware
- (vi) Which virus alters its file size to conceal itself in the computer memory?
  - (a) Macro virus
  - (b) Boot sector virus
  - (c) Stealth virus
  - (d) None of these
- (vii) Which attack deals with manipulation in database?
  - (a) SQL Injection
  - (b) Virus
  - (c) DoS
  - (d) None of these
- (viii) Which of the following is an example of backdoor Trojan?
  - (a) Back Orifice
  - (b) Bifrost
  - (c) SAP Backdoors
  - (d) All of above

- (ix) Which phishing technique uses graphics instead of text?  
 (a) Flash Phishing (b) Social Phishing  
 (c) Filter evasion (d) Phone phishing
- (x) Which of the following is an example of Human based ID theft technique?  
 (a) Skimming (b) Dumpster Diving  
 (c) Geotagging (d) Both (a) and (b)

*Fill in the blanks with the correct word*

- (xi) \_\_\_\_\_ is a method of registering popular Internet address with the intent of selling to its owner.
- (xii) \_\_\_\_\_ virus is a hybrid of boot sector virus and program virus.
- (xiii) Patriot hacking is also known as \_\_\_\_\_.
- (xiv) \_\_\_\_\_ is a means of accessing a computer program that bypasses security mechanisms.
- (xv) \_\_\_\_\_ is a DoS launching tool that sends large packets of ICMP to a remote target network.

### **Group - B**

2. (a) Compare between Email bombing and Salami attack. [[CO1](Analyse/IOCQ)]  
 (b) Compare between Logic Bomb and Trojan Horse. [[CO1](Analyse/IOCQ)]  
 (c) Differentiate between Data diddling and Software piracy. [[CO1](Analyse/IOCQ)]  
**4 + 4 + 4 = 12**
3. (a) Compare between Forgery and Web jacking. [[CO1](Analyse/IOCQ)]  
 (b) Explain any two Cybercrimes in each classification of Cybercrime. [[CO1](Understand/LOCQ)]  
**4 + 8 = 12**

### **Group - C**

4. (a) Compare between RAS security for Mobile device and Media Player Control Security. [[CO3](Analyse/IOCQ)]  
 (b) Compare between IMEI code and IMSI code of a mobile device. [[CO3](Analyse/IOCQ)]  
 (c) Discuss any three countermeasures against Mobile Phone theft. [[CO3](Understand/LOCQ)]  
**6 + 3 + 3 = 12**
5. (a) Explain different types of Bluetooth hacking tools. [[CO3](Understand/LOCQ)]  
 (b) Differentiate between Scareware, Ransomware and Malvertising. [[CO3](Analyse/IOCQ)]  
**6 + 6 = 12**

## Group - D

6. (a) Differentiate between Boot sector virus and Macro virus. *[[CO4)(Analyse/IOCQ)]*  
(b) Differentiate between Program virus and Stealth virus. *[[CO4)(Analyse/IOCQ)]*  
(c) Differentiate between Morris worm and Nimda worm. *[[CO4)(Analyse/IOCQ)]*  
**4 + 4 + 4 = 12**
7. (a) Explain the steps for SQL injection attack. *[[CO5)(Understand/LOCQ)]*  
(b) Discuss three countermeasures against SQL injection attack. *[[CO5)(Understand/LOCQ)]*  
(c) Differentiate between SQL injection and Blind SQL injection. *[[CO5)(Analyse/IOCQ)]*  
**6 + 3 + 3 = 12**

## Group - E

8. (a) Explain six types of Phishing techniques. *[[CO6)(Understand/LOCQ)]*  
(b) Explain Homograph attack, Spear Phishing and Whaling. *[[CO6)(Understand/LOCQ)]*  
**6 + 6 = 12**
9. (a) Explain any six human based techniques of Identity theft. *[[CO6)(Understand/LOCQ)]*  
(b) Discuss three risks associated with Geotagging and three countermeasures against Geotagging. *[[CO6)(Understand/LOCQ)]*  
**6 + (3 + 3) = 12**

---

Cognition Level	LOCQ	IOCQ	HOCQ
Percentage distribution	52.08	47.92	

