

**PARUL UNIVERSITY**  
**FACULTY OF ENGINEERING & TECHNOLOGY**  
**B.Tech. Winter 2019 – 20 Examination**

**Semester: 5****Subject Code: 03105346****Subject Name: Cyber Security****Date: 12/12/2019****Time: 10:30 am to 1:00 pm****Total Marks: 60****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

**Q.1 Objective Type Questions.****(15)**

1. Network layer firewall has two sub-categories as .....
  - a) stateful firewall and stateless firewall
  - b) bit oriented firewall and byte-oriented firewall
  - c) frame firewall and packet firewall
  - d) none of the mentioned
2. A digital signature needs an .....system.
  - a) symmetric key
  - b) asymmetric key
  - c) either a or b
  - d) neither a or b
3. Which of the following malicious program do not replicate automatically?
  - a). Trojan Horse
  - b). Virus
  - c). Worm
  - d). Zombie
4. To Hide Information Inside A Picture, What Technology Is Used?
  - a). Rootkits
  - b). Bitmapping
  - c). Steganography
  - d). Image Rendering
5. What is the proper command to perform banner grabbing in Nmap on localhost?
  - a). nmap -sT --script=banner 127.0.0.1
  - b). nmap -sL --banner=script 127.0.0.1
  - c). nmap -sV --script=banner 127.0.0.1
  - d). nmap -sS --banner=script 127.0.0.1
6. In port scanning, a port is always associated with the \_\_\_\_\_ (typically of host system) & the type of \_\_\_\_\_ employed for communication.

7. Banner grabbing is a one type of \_\_\_\_\_.
8. A HTTP connection uses port \_\_\_\_\_ whereas HTTPS uses port \_\_\_\_\_ and invokes SSL.
9. A firewall need to be \_\_\_\_\_ so that it can grow with the network it protects.
10. The two most widely used VPNs are \_\_\_\_\_ and \_\_\_\_\_.
11. Write Full Form of SSL.
12. What is CIA?
13. What is Firewall?
14. Define Nmap.
15. Define Spyware.

**Q.2 Answer the following questions. (Attempt any three) (15)**

- A) What is Cyber Crime? Explain Types of Cybercrime?
- B) Explain Network sniffing.
- C) What is VPN? Explain types of VPN.
- D) Write a short note on Denial of Service attack.

**Q.3 A) What is Vulnerability? Explain Types of vulnerability scanning in brief. (07)**

- B) Explain Following terms: (08)
1. Worm
  2. Virus
  3. Password cracking
  4. Trojan

**OR**

- B) Describe types of firewall in detail. (08)

**Q.4 A) Explain Network Address Translation in details. (07)**

**OR**

- A) Explain the brute force attack. How to prevent it? (07)
- B) What is "Information System"? Explain types of Information System in brief. (08)