

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**ME - SEMESTER-II • EXAMINATION – SUMMER 2015**

**Subject Code: 2725103****Date: 28/05/2014****Subject Name: Information system & Network Security****Time: 2:30 pm to 5:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) How would you differentiate Penetration Testing, Vulnerability Assessment and Auditing? Explain the steps of Penetration Testing **07**  
 (b) What is the need of Penetration testing? Discuss about its phases, scope and strategies. **07**
- Q.2** (a) What are the Critical vulnerabilities in Web Applications? Explain how they work and suggest their mitigations. **07**  
 (b) Explain the Risk in information security. **07**
- OR**
- (b) What are the Risk Assessment and Risk mitigation Steps? **07**
- Q.3** (a) What do you understand by threat agents in information security? **07**  
 (b) Explain security attack classification. **07**
- OR**
- Q.3** (a) What are the essential blocks for Information security? How can we achieve them? **07**  
 (b) Explain the threats and countermeasures in secure communication. **07**
- Q.4** (a) Explain the Email security implementation steps. Discuss about PGP and GPG and MIME. **07**  
 (b) Discuss in the terms of security threats about Virus, Worm, Trojan, Backdoor, Rootkit, Spam, Spyware, Malware and Key-logger **07**
- OR**
- Q.4** (a) Discuss Credit Card frauds possibility and countermeasures to avoid risk of theft. **07**  
 (b) What do you understand by Digital Signature? How do we generate it? Write about its weakness. **07**
- Q.5** (a) How Password is play a role in authorization? Discuss about common password vulnerabilities. Mention the type of password cracking attacks, with the tools and steps taken **07**  
 (b) Write a note on Social Engineering and Phishing **07**
- OR**
- Q.5** (a) Discuss the Role of security policies and explain different types of security policies. **07**  
 (b) How data privacy is important in information security? Explain Sarbanes Oxley 2002. **07**

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