

GUJARAT TECHNOLOGICAL UNIVERSITY**ME - SEMESTER– I (New course)• REMEDIAL EXAMINATION – SUMMER 2015****Subject Code: 3715104****Date:15/05/2015****Subject Name: Network Defense and Countermeasures****Time: 10:30 am to 1:00 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) Explain the OSI reference model in detail. **07**
(b) Explain the TCP/IP Model in detail. **07**
- Q.2** (a) Explain the tunnel mode and transport mode in IPSec. **07**
(b) Explain stateful packet inspection **07**
- OR**
- (b) Explain Stateless packet inspection **07**
- Q.3** (a) Explain the advantages and disadvantages of Hardware and Software Firewalls **07**
(b) Explain the working of iptable architecture in detail **07**
- OR**
- Q.3** (a) What is the difference between an attack and a security event? Explain the components of an attack in detail **07**
(b) Explain the three types of security mechanisms in detail. **07**
- Q.4** (a) Explain the structure of a signature with some examples **07**
(b) Explain its features and uses from a network security perspective. **07**
- OR**
- Q.4** (a) Discuss in detail the advantages and disadvantages of a site-to-site VPN. **07**
(b) Discuss in detail the advantages and disadvantages of user VPN. **07**
- Q.5** (a) Discuss the role of Spanning Port, Hubs and TAPs in IDS / IPS architecture **07**
(b) Explain about Integrity from an information security perspective. **07**
- OR**
- Q.5** (a) Explain IDS Analysis scheme in details covering the various steps in IDS Analysis. **07**
(b) Explain rule based and anomaly detection in IDS? **07**
