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**MANIPAL INSTITUTE OF TECHNOLOGY**

**MANIPAL**

*A Constituent Institution of Manipal University*

**II SEMESTER M.TECH (COMPUTER SCIENCE AND INFORMATION SECURITY)**

**DEGREE EXAMINATIONS, APRIL/MAY 2017**

**SUBJECT : INTRUSION DETECTION SYSTEMS(CSE 5250)**

**REVISED CREDIT SYSTEM**

**DATE: 29-04-2017**

**TIME:03 HOURS**

**MAX.MARKS : 50**

Instructions to Candidates:

- Answer ALL FIVE FULL questions.
- Missing data, if any, may be suitably assumed.

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| 1A. Explain Intrusion Detection Expert System[IDES] model briefly.  | 3M |
| 1B. Draw Distributed Intrusion Detection System[DIDS] Architecture and Explain.   | 4M |
| 1C. Define “security triad”: Confidentiality, Integrity, Availability.  | 3M |
| 2A. Explain Architecture, Monitoring strategy and Analysis type of a Intrusion Detection System with a neat Diagram   | 4M |
| 2B. Discuss Pros and Cons of Operating System Audit trails.   | 3M |
| 2C. What is the Advantage and Disadvantage of System logs as information Sources in Intrusion Detection Systems?  | 3M |
| 3A. Explain the steps involved in building a Behavior Classification Engine for misuse detection and Anomaly Detection.   | 4M |
| 3B. Explain Non-Parametric Statistical Measures for Anomaly Detection.  | 2M |
| 3C. Explain Agent-Based Intrusion Detection with the help of a Diagram.   | 4M |
| 4A. Explain different Types of Responses in Intrusion detection System.   | 3M |
| 4B. What are the Scalability Issues in Intrusion Detection Systems?   | 3M |
| 4C. What are the problems in Design and Development of Operating Systems as proposed by RISOS team that may lead to the origin of security problems in Intrusion Detection Systems? | 4M |
| 5A. What do you mean by Extrusion Detection? What is the difference between Intrusion Detection and Extrusion detection? Explain with a simple network diagram.                     | 3M |
| 5B. What are the four forms of Network Data that used to implement Network Security Monitoring? Explain in Detail.  | 3M |
| 5C. Explain Extrusion Detection with Full Content Data with the help of Diagram.  | 4M |