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**MANIPAL INSTITUTE OF TECHNOLOGY**  
**MANIPAL**  
*(A constituent unit of MAHE, Manipal)*

**VI SEMESTER B.TECH. (COMPUTER SCIENCE & ENGINEERING)**  
**MAKEUP EXAMINATIONS, JUNE 2018**

**SUBJECT: ADVANCED COMPUTER NETWORKS [CSE 4013]**

**REVISED CREDIT SYSTEM**  
**(20/06/2018)**

Time: 3 Hours

MAX. MARKS: 50

**Instructions to Candidates:**

- ❖ Answer **ALL** the questions.
- ❖ Missing data may be suitably assumed.

- 1A.** What are the functions of Transport layer in OSI reference Model? **2M**
- 1B.** What is VTP Pruning? Explain three types of VTP advertisement messages. **4M**
- 1C.** Explain Spanning-Tree Protocol in detail with necessary Diagrams.  
Describe the following in Spanning Tree Protocol **4M**  
(i) Root Bridge (ii) Blocked ports
- 2A.** Explain the n-Tier Application Architecture Model in Data Centers. **3M**
- 2B.** What is Frame tagging? Explain three VLAN Identification Methods. **4M**
- 2C.** Describe the three Failover Models for Load Balancer. **3M**
- 3A.** Explain three ways of achieving Server Multi Homing with necessary diagrams. **2M**
- 3B.** How DoS attack affect Data Centers? Explain different types of DoS attacks. **4M**
- 3C.** What are the three switching modes of LAN switches? Explain each of them. **4M**

- 4A.** Explain the following: **4M**  
(i) Full Virtualization (ii) Para Virtualization (iii) Hardware assisted Virtualization
- 4B.** Explain four key Properties of Virtual Machines. **2M**
- 4C.** Explain the four steps involved in Virtualization Implementation. **4M**
- 5A.** What is the purpose of SDP? Explain three levels of information in an SDP message. **3M**
- 5B.** Explain two approaches for constructing a VoIP topology. **4M**
- 5C.** What are the basic SIP request methods? Explain the functions of each. **3M**