

Regn. No.

--	--	--	--	--	--	--	--	--



MANIPAL INSTITUTE OF TECHNOLOGY

MANIPAL

(A constituent unit of MAHE, Manipal)

VI SEMESTER B.TECH(COMPUTER SCIENCE AND ENGINEERING

END SEMESTER EXAMINATIONS, MARCH/APRIL-2018

SUBJECT : ADVANCED COMPUTER NETWORKS[CSE 4013]

REVISED CREDIT SYSTEM

DATE: 24-04-2018

TIME:03 HOURS

MAX.MARKS : 50

Instructions to Candidates:

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

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------|----|
| 1A. Explain any Two Switch Functions at Data Link Layer with neat Diagrams. | 3M |
| 1B. Explain VLAN Trunk Protocol Modes of operation with neat Diagram. | 3M |
| 1C. Explain how Broadcast Control, Security, and Flexibility & Scalability can be achieved using Virtual Local Area Networks(VLANS) | 4M |
| 2A. What are the features available in a typical Server Network Interface Cards? | 3M |
| 2B. Explain the following Datacenter Services: IP infrastructure Services, Application Services. | 3M |
| 2C. What are the different types of server farms available in a Data Centers? Explain with a neat topology of Typical Data Center. | 4M |
| 3A. List and explain different types of servers you can find in Data Centers. | 3M |
| 3B. Draw and Explain n-Tier Application Architecture Model in Data Centers. | 3M |
| 3C. Explain DNS Round-Robin Load Balancing & Server Load Balancing with dedicated Load Balancer. Draw necessary Diagrams. | 4M |
| 4A. List and Explain 5-step process involved in the move to virtualization. | 3M |
| 4B. What is a Virtual Machine? Explain several different components of virtual Machines. | 3M |
| 4C. Explain two different Server Virtualization Models with Neat Diagrams. | 4M |

- 5A. Give a topology for Basic Operations of VOIP and explain the DHCP and TFTP conversation. 3M
- 5B. Draw a simple SIP topology and explain the function of User Agent Client, User Agent Server, Proxy, Redirect Server and RegistrarServer. 3M
- 5C. Explain the Basic Operation of Real-Time Transport Protocol. Give RTP header format and explain its fields. Also explain role of Real-Time Control Protocol. 4M