

**Computer Science & Engineering
System & Network Administrator (MTCE 705A)**

Question Bank

Section A

- Q: 1 Why system administration is required? Discuss its goals and responsibilities.
- Q: 2 Explain in details about the various routing algorithms used in VLAN.
- Q: 3 Why is system administration required? Discuss its goal and limitations?
- Q: 4 What do you mean by process? What are its various states? How process activities can be monitored?
- Q:5 Explain network equipment used in wired-LANS and explain the function of Hub, Switch, and bridge.
- Q:6 Explain following command in detail
ping, netstat, tracert, traceroute, ifconfig,
- Q:7 Explain TCP/IP Model in detail.
- Q:8 What is IP addressing? Explain IPv4 frame format.
- Q:9 Explain Subnetting with Example.
- Q:10 Briefly explain system performance tuning?

Section B

- Q:1 Explain the Data Encryption standard algorithm with flowchart.
- Q:2 Explain the directory structure of UNIX?
- Q: 3 Differentiate between confusion and diffusion.
- Q:4 What do you mean by open source software?
- Q:5 Write the various steps in booting the Unix operating system.
- Q:6 Describe NTFS file standard?
- Q: 7 What role does GRUB play in booting process?
- Q 8 What is the need of swap space while installing Linux?
- Q: 9 Write the various steps followed in creating partitions in Linux.
- Q: 10 Write step to configure DNS server? what role a DNS server plays.

Section C

- Q:1 What is DNS? What role does it play?
- Q:2 Differentiate between static and dynamic routing?
- Q:3 What is the connection between TCP/IP and ARPANET?
- Q :4 What is IPSec? On which layer is it implemented? Also explain the fundamental data structure used IPsec.
- Q:5 What is DOS Attack? How does DOS can be detected & prevented?
- Q:6 Difference between vulnerability, threat and control.

- Q:7 What is the need of security? Write the various issues pertaining to it.
Q:8 What are caesar ciphers? Write advantage and disadvantage of them.
Q:9 Discuss OSPF routing protocol?
Q: 10 Show the cryptanalysis of a caesar cipher by taking a suitable example.

Section D

- Q:1 Write a shell program to find the largest of two number entered through the keyboard.
Q: 2 In your words explain how access control and monitoring is performed by administrator?
- Q: 3 Write short notes on the following:
- (1) AWK
 - (2) Digital Signatures
 - (3) NAT
- Q: 4 Difference between windows & UNIX operating system?
Q :5 Explain the directory structure of UNIX?
Q: 6 What is main characteristic of UNIX file system?
Q:7 Write a short note on Perl scripting?
Q:8 What is TCP Wrappers?