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**63/2 (SEM-3) CSIT 3'6**

**2022**

**(Held in 2023)**

**CSIT**

**(Theory Paper)**

**Paper Code : CSIT 3.6**

**(System Administration)**

**Full Marks – 80**

**Pass Marks – 32**

**Time – Three hours**

**The figures in the margin indicate full marks  
for the questions.**

1. Answer any *five* of the following questions : 2×5=10
- (a) What is System Administration ?
  - (b) What is Intrusion-Detection System ?
  - (c) Why routing protocol is required in Computer Network ?
  - (d) What is Cloud ?

**[Turn over**

- (e) What is GRID computing ?
- (f) What is the purposes of Firewall in Computer Network ?
- (g) Explain the difference between Broadcast and Multicast.

2. Answer any *five* of the following questions :

5×5=25

- (a) Explain how a chmod function in Linux is used for file permission.
- (b) Explain various operation of vi editor.
- (c) Define the configuration of DHCP and TELNET Server in Linux.
- (d) What are the different types of wired and wireless communication media used in Computer Network ? Explain.
- (e) Explain TCP / IP protocol in brief.
- (f) Write a shell program to check a number is prime or not.
- (g) Write a shell program to find the digit sum of an integer number.

(h) Write the Linux command for the following :

- (i) Broadcast a message to all the users in network
- (ii) Add and delete new user
- (iii) Make directory
- (iv) To show machine id
- (v) To check whether a network or a server is reachable or not.

3. Design a network architecture for an organization with ip addressing scheme, communication media, network devices and security measures.

15

4. Explain the procedure of any virtual machine and also define the installation procedure of any operating system on it.

15

5. Write short notes on any *three* of the following :

5×3=15

- (a) Router
- (b) Gateway
- (c) Switch
- (d) Proxy Server.