

- N. B.: (1) **All** questions are **compulsory**.
 (2) Make **suitable assumptions** wherever necessary and **state the assumptions** made.
 (3) Answers to the **same question** must be **written together**.
 (4) Numbers to the **right** indicate **marks**.
 (5) Draw **neat labeled diagrams** wherever **necessary**.
 (6) Use of **Non-programmable** calculators is **allowed**.

1. Attempt any two of the following: 10

- What is purpose of MTA? Explain how MTA works?
- Write different classes of IP address. Also write the net mask, range of value for first byte and the IP numbers generally used by these networks.
- Explain the process of Tracing Email Delivery along with various components of Email program.
- State and explain any five directives for configuring the default server in Apache.

2. Attempt any three of the following:

- Write a short note on LVM.
- Explain how GRUB works.
- What is runlevel? List various runlevels. Explain them.
- Explain the duties of system administrators.
- What is the importance of rc scripts? Explain.
- Explain booting sequence of Linux Operating System.

3. Attempt any three of the following: 15

- Explain the concept of subnetting with suitable example.
- What is DHCP? How to configure DHCP? Explain with suitable example.
- How can network services be started from xinetd and rc scripts?
- What are the general, server-specific and client-specific NFS security issues?
- Explain the following:
 - cron
 - grub.config
 - ld.so.config
 - syslog.config
 - logrotate.config
- List various squid configuration parameters. Also write their purpose.

4. Attempt any three of the following: 15

- Write and explain the steps to configure the time server.
- Explain use of ssh, scp, sftp services
- On a Linux machine a directory named /home/TYIT/exam is created. If the user wants to access this directory from windows machine what configuration is needed? Write and explain
- Explain the following options of samba configuration file
 - workgroup
 - smbpasswd file
 - security
 - dns proxy
 - server string
- How to configure NTP server to use autokey encryption?
- Explain in detail the [homes] section of /etc/samba/smb.conf file.

[Turn Over]

5. **Attempt any three of the following:** **15**
- a Explain how MTA works.
 - b Explain the working of IMAP4. What is the difference between IMAP4 and POP3?
 - c How is SendMail configured and used? Explain.
 - d How is postfix configured?
 - e How to configure NTP client to use autokey encryption?
 - f What is a caching proxy server? Explain squid and state the steps involved in its configuration process.
6. **Attempt any three of the following:** **15**
- a. What are the common mailman administrative tasks? Explain.
 - b. Write the features of Apache.
 - c. What are the steps to enable guest user ftp accounts?
 - d. State and explain any five SSL-related configuration directives that are useful while running vsftpd over SSL.
 - e. Write the purpose of the following global configuration directives of httpd.conf
 - a. Keepalive b. KeepaliveTimeout c. MaxClients d. ServerLimit e. StartServers
 - f. How to set up an Dovecot IMAP server?
7. **Attempt any three of the following:** **15**
- a. Explain the /etc/shadow and /etc/passwd files.
 - b. Enumerate the features of sudo.
 - c. How can CGI be enabled with Apache?
 - d. Explain the quotacheck command with example.
 - e. Explain rpmquery command with options.
 - f. What are the changes in Apache 2?
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