

(2½ Hours)

[Total Marks: 75]

- 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 three of the following:** 15
  - a. Write down the steps for: add a new User and Groups, modify its properties and view Groups via user manager application.
  - b. List and Explain duties of Linux system administration.
  - c. Explain two ways to gain administrative privileges using **su** and **sudo** command.
  - d. How to manage packages on RHEL using both YUM and PackageKit Suit.
  - e. Explain adding, enabling, disabling YUM repository.
  - f. Describe installing package, package group and removing a package.
  
2. **Attempt any three of the following:** 15
  - a. Write down the steps to establish a wireless connection for mobile broadband.
  - b. Explain different kinds of partition in Linux.
  - c. Describe different types of file system and its properties.
  - d. Write a short note on ETH Tool.
  - e. Explain Network Configuration and Interface configuration files.
  - f. How to create Logical Volume with three different parts.
  
3. **Attempt any three of the following:** 15
  - a. Discuss the steps to install and configure VNC Server.
  - b. Write short note on MTA, MDA and MUA.
  - c. Explain all the steps to set up a Samba server.
  - d. What is the concept of APACHE HTTP Server? explain in brief.
  - e. Explain Mail Access Protocol.
  - f. What is DNS Server and explain its Nameserver zone with BIND.
  
4. **Attempt any three of the following:** 15
  - a. Explain **ps** and **top** command with their options.
  - b. Write down the steps to run the Net-snmp package.
  - c. Explain the basic configuration of RSYSLOG file.
  - d. How to install CRON and ANCRON daemons.
  - e. Explain the working with Queue in Rsyslog.

f. Discuss the following commands:

- a. lsblk
- b. lsblk -l
- c. blkid
- d. findmnt
- e. findmnt -l

5. Attempt any three of the following:

15

- a. Write down the steps to allow basic services through the firewall using system-config-firewall.
- b. What is tables, chains, and rule? How is rule composed? explain in brief.
- c. Explain the configuration of NAT.
- d. Write the steps for creating, exchanging, and managing GPG keys.
- e. What are the elements of bash shell? Write one example in bash shell with executing script.
- f. How to create and manage certificate using openssl command-line utility.

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