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**BT-5/D-18**      **35158**

# LINUX OPERATING SYSTEM
## IT.301.N

Time : Three Hours]       [Maximum Marks : 75

**Note :** Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

### Unit I

1. Why operating system is needed in a Computer System ? How is Linux different from other popular operating system ? Discuss.

2. (a) What do you mean by apt package installation and removal of software packages ? Explain.

   (b) How users and user groups are maintained in Linux ? Discuss.

### Unit II

3. What is Address Resolution Protocol ? Explain inpconfig and netstat commands of Linux using suitable example.

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4. (a) What is Remove Procedure Call (RPC) ? How is RPC carried out on network file system ? Discuss.

   (b) What do you mean by Centralized authentication system ? How can you share users and other information on network ? Explain.

### Unit III

5. Why to integrate Linux and Windows on same system ? What are the different approaches for installing more than one operating system on one machine.

6. Explain the following in shell scripting :
   (i) awk             (ii) sed
   (iii) grep           (iv) scheduling job

### Unit IV

7. Explain the following :
   (i) TCP-Wrappers      (ii) IP-Firewalls
   (iii) NAT and DMZ.

8. (a) How to setup a email server on Linux ? Explain.

   (b) What is host name on DNS ? How to configure host names and cache techniques of DNS ?