

23076

**M.Tech. 3rd Semester (Computer Sci. Engg.)
Examination, December-2017
SYSTEM AND NETWORK ADMINISTRATION
Paper-MTCE-705-A**

Time allowed : 3 hours] [Maximum marks : 100

Note : Attempt any five questions in all. All questions carry equal marks.

1. (a) Explain TCP/IP model. 10
(b) Briefly explain the network related commands :
(i) traceroute (ii) ipconfig (iii) netstat (iv) ping. 10
2. (a) Explain the process of proxy server in detail. 10
(b) (i) What is subnetting? Explain with an example. 5
(ii) What is the first valid host on the subnetwork that the node 172.31.252.252/23 belongs to? 5
3. (a) What is Public key cryptography? Explain the public key algorithm RSA in detail. 10
(b) What is cipher? Explain substitution cipher and transposition briefly. 10

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[P.T.O.]

4. Briefly explain the following : 20
- (a) IPSEC
 - (b) Access control list
 - (c) Digital signatures.
5. (a) What are the necessary issues to be tackled in host management ? 10
- (b) Briefly explain the steps for the installation of Linux. 10
6. Write a short note on : 20
- (a) Shadow passwords
 - (b) User accounts
 - (c) Booting process of Windows
 - (d) Group accounts.
7. (a) Discuss about AWK with example. 10
- (b) Write a shell script to find the factorial of a given number. 10
8. Write a short note on : 20
- (a) Shell scripting
 - (b) Perl
 - (c) Syntax of Creating, renaming and deleting directory commands in UNIX with example.