

B. Voc. (Hardware and Networking)  
First Semester  
HWN-104: Network Fundamentals

Time allowed: 3 Hours

Max. Marks: 40

*NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting one question from each Unit.*

X-X-X

I. Write short notes on the following:

- a) LAN/WAN/MAN
- b) OSI Reference Model
- c) IEEE Standards
- d) NIC

(4 X 2 = 8)

UNIT - I

II. Define Computer Network. What are its characteristics? Explain in brief advantages and disadvantages of Computer Network. (8)

III. Define Network Topology. Explain in brief various network topologies. (8)

UNIT - II

IV. Explain TCP/IP Reference Model. Draw diagram and explain functions of each layer of TCP/IP Model. (8)

V. Define transmission media. Name and explain its types. Explain guided transmission media. (8)

UNIT - III

VI. Define networking protocols. What are its types? Explain any four networking protocols in brief. (8)

VII. Explain the following networking devices:

- a) Hub
- b) Router
- c) Bridge
- d) Repeater

(4 X 2 = 8)

UNIT - IV

VIII. Explain the following user management tasks:

- a) Adding User
- b) Setting account restrictions for user
- c) Deleting the user
- d) Renaming an account

(2 X 4 = 8)

IX. What is an IP Address? What is its format? Explain in brief classes of IP Address. (8)

X-X-X