

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPT./CENTRE: **Electronics and Computer Engineering**

1. Subject Code: **EC – 473** Course Title: **Computer Networks Lab**

2. Contact Hours: **L: 0 T: 0 P: 3**

3. Examination Duration (Hrs.): **Theory**

0	0
---	---

Practical

0	0
---	---

4. Relative Weightage: **CWS**

00

PRS

100

MTE

00

ETE

00

PRE

00

5. Credits:

0	2
---	---

 6. Semester

√

--

--

Autumn **Spring** **Both**

7. Pre-requisite: **EC - 356**

8. Subject Area: **DCC**

9. Objective: To design program and configure various hardware and software components of computer networks, including protocols.

10. Details of the Course:

Sl. No.	Contents	Contact Hours
	Socket programming using RPC and RMI. Cryptography algorithms, DES, RSA, and digital signatures. Implementation of various LAN protocols and configurations. Network simulation using the NS2 package. Network simulation using the Qualnet software. Configuration of PC as router and switch.	14 x 3
	Total	42

11. Suggested Books:

Sl. No.	Name of Books / Authors	Year of Publication
1.	Tanenbaum, A.S., "Computer Networks", 4 th Ed., Pearson Education.	2003
2.	Forouzan, B.A., "Data Communication and Networking", 4 th Ed., Tata McGraw-Hill.	2006
3.	Stallings, W., "Cryptography and Network Security: Principles and Practice", 4 th Ed., Prentice-Hall of India.	2006
4.	Stallings, W., "Data and Computer Communication", 8 th Ed., Prentice-Hall of India.	2007
5.	Stevens, W. R., "Unix Network Programming: Vol. II", 2 nd Ed., Pearson Education	2002