

**Code No: 115DT****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech III Year I Semester Examinations, March - 2017****COMPUTER NETWORKS****(Common to CSE, IT)****Time: 3 hours****Max. Marks: 75****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

**PART - A****(25 Marks)**

- 1.a) What is the use of datalink layer ? [2]
- b) What is ARP? Explain. [3]
- c) Explain about Broadcast link. [2]
- d) Give the classification of multiple access protocols. [3]
- e) Write any two services network layer provides to transport layer. [2]
- f) Explain about datagram and virtual circuit. [3]
- g) What is internetworking? [2]
- h) List out the internetworking devices. [3]
- i) What is the role of UDP in internet transport protocol? [2]
- j) What is TELENET? [3]

**PART-B****(50 Marks)**

2. Explain about various transmission media in physical layer with a neat sketch. [10]
- OR**
3. Elaborate on the design issues of data link layer. [10]
4. Write in detail on Time-Division Multiplexing and Frequency-Division Multiplexing with an example for each. [10]
- OR**
5. Write and explain about various multiple access protocols. [10]
6. Explain the Optimality Principle with a suitable example. [10]
- OR**
7. Explain distance vector routing algorithm. [10]
8. What happens when large packet wants to travel through network with smaller maximum packet size? Explain. [10]
- OR**
9. Explain tree-structured numbering scheme. [10]
10. Explain about RPC with a neat sketch. [10]
11. What is DNS? What are the services provided by DNS and explain how it works. [10]