JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech IV Year I Semester Examinations, March - 2017
NETWORK PROGRAMMING
(Common to CSE, IT)

Time: 3 Hours

Max. Marks: 80

Answer any Five Questions
All Questions Carry Equal Marks
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1.a) Discuss about standard internet services.
 b) Write briefly about the TCP connection establishment and release. [8+8]

2.a) Explain different types of socket address structures, Byte ordering and manipulation functions.
 b) List the elementary TCP socket functions required for communication at server side and client side. [8+8]

3.a) Write a program to implement TCP Echo client –server.
 b) Discuss crashing, rebooting and shutdown of server host. [8+8]

4.a) What is the purpose of I/O Multiplexing? Explain with suitable examples.
 b) What are the different types of I/O models? Explain each with neat diagrams. [8+8]

5.a) What are different types of system calls used for UDP client server communication? Explain each with function prototype.
 b) List the differences between TCP and UDP. Write briefly Lack of flow control with UDP. [8+8]

6. What is DNS? Explain DNS resource records, resolver and DNS name servers with neat diagram and examples. [16]

7.a) What is file and record locking? Explain about advisory and mandatory locking. Write briefly about the semaphores.
 b) Write a program to lock and unlock a file by using 4.3 BSD advisory locking. [8+8]

8. What do you mean by RPC? Explain communication between client stub and server stub with neat diagrams. Discuss RPC transparency Issues. [16]

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