

Code No: D4004

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.TECH II - SEMESTER EXAMINATIONS, APRIL/MAY 2012
NETWORK PROGRAMMING
(INFORMATION TECHNOLOGY)**

Time: 3hours**Max. Marks: 60**

**Answer any five questions
All questions carry equal marks**

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- 1.a) Draw the OSI seven layered model along with the approximate mapping to the Internet protocol suite. Also explain the functions offered by each layer.
- b) Explain how TCP connection is established using Three-way handshake protocol.
- 2.a) What is the purpose of fork function? Give the syntax and explain. What are the typical uses of fork?
- b) Make a comparison between the iterative server and concurrent server.
- 3.a) Write the client processing loop that read a line of text from standard input, write it to the server, read back the server's echo of the line, and output the echoed line to standard output.
- b) Explain the steps involved in normal termination of TCP client and server communication.
- 4.a) Make a comparison of the five different I/O models in UNIX.
- b) What socket options are processed by IPv6 with a level of IPPROTO_IPV6? Explain.
5. Explain the UDP client-server from client's and server's perspective
6. Explain the following functions:
 - a) gethostbyname
 - b) uname
- 7.a) Show a picture of all the processes involved in the 4.3BSD remote login client and server and explain it.
- b) "4.3BSD considers a terminal device in one of three modes." Explain the three modes.
8. Discuss in detail the issues to be considered to make use of RPC transparent to the applications.
