

Code No: 156CA**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech III Year II Semester Examinations, August - 2022****NETWORK PROGRAMMING****(Common to CSE, IT)****Time: 3 Hours****Max. Marks: 75****Answer any five questions
All questions carry equal marks**

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- 1.a) Write the syntax for readn() and writen() functions and explain its usage.
- b) List and explain various byte manipulation functions with clear syntax. [6+9]
2. Explain the following elementary socket functions with neat syntax and example:
a) socket() b) bind() c) connect() d) listen() e) accept() [15]
3. Write down the programs for TCP echo server and TCP echo client. Explain the function that echos data on a socket and the function for client processing loop. [15]
- 4.a) Describe signal-driven I/O model and Asynchronous I/O model with neat diagrams.
- b) Give the syntax of select() function and describe its basic functionality. [9+6]
5. List and explain various IPv4 and IPv6 socket options. [15]
- 6.a) Give a detailed syntax and explanation of recvmsg() and sendmsg() functions and summarize various I/O flags of it.
- b) Give the basic functionality of fcntl() function. [9+6]
7. Explain the following functions with an illustrative example code:
a) gethostbyname() b) gethostbyaddr() [8+7]
8. Give an overview of the traceroute program to determine IP datagrams path from our host to other destination with an illustrative program and flowchart. [15]

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