Level: Bachelor   Semester: Spring   Year   : 2019
Programme: BE   Full Marks: 100
Course: Network Programming   Pass Marks: 45
                                                    Time   : 3hrs.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt all the questions.

1.	a) Define Computer network and network programming? Explain the various states used in TCP state transition diagram with supporting figure.	7
	b) What do you mean by Active Network Model? Compare peer to peer and Client/Server based Model on the basis of communication, cost and security.	8
2.	a) What is value result argument? Compare bzero () with memset ().	8
	b) What is socket API? Explain socket address structure for IPv4 and IPv6.	7
3.	a) What is I/O model? Compare Blocking and nonblocking I/O model with diagram.	7
	b) What is the purpose of bind () function? What will be the outcomes if we do not specify IP address, port, both, or neither.	8
4.	a) What is file descriptor passing? Explain advantages of UNIX Domain protocol.	7
	b) What is daemon process? Explain how to demonize a process.	8
5.	a) Explain WSAData ,WSACleanUP,WSAStartup and closesocket() with help of suitable code.	8
	b) Differentiate load time dynamic linking and run time dynamic linking. Explain winsock architecture. Explain WSAAsyncSelect() function.	7
6.	a) What are the differences between Unix socket and windows socket? Explain the significance of setup and cleanup functions in windows socket with function prototype and required structure definition?	8
	b) What is overlapped socket? Compare overlapped socket system call with blocking socket System call along with the help of Outline code.	7

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7. Write short notes on: (**Any two**)   2×5
    a) rlogin
    b) ipconfig/ifconfig and netstat
    c) Concurrent server in unix